Clinical Lectures
ON THE
COMMON FORMS OF PARALYSIS FROM BRAIN DISEASE.

Delivered at University College Hospital,

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LECTURE I.

GENTLEMEN,—Whilst I have been in charge of in-patients, during the present session, we have had several very interesting cases of hemiplegia under our observation, and I have been asked to give a few lectures on this subject,—dealing with the common forms of hemiplegia, so that you may learn the principal variations which are to be met with in the symptoms, and how far these variations are indicative of lesions in different parts of the brain. The request seemed reasonable and not unnatural, considering the very brief and altogether inadequate descriptions of the hemiplegic state which are at present accessible to you in the various medical text-books. But the subject is one of very great extent and importance, since lesions of various kinds in different parts of either half of the brain all tend to produce more or less complete hemiplegia, or paralysis of one lateral half of the body, on the side opposite to that of the brain lesion. It is impossible, therefore, that the subject could be dealt with in an adequate manner in the few pages which may be devoted to it in a text-book should it receive this formal recognition; though in more than one of the larger and more important works of this class you will find that the symptoms of hemiplegia do not receive even this amount of recognition, and are only incidentally alluded to by writers on hæmorrhage, softening, abscess, or other pathological changes in the brain. In these works brain disease is dealt with primarily from a pathological stand-point, and with too little reference to the locality of the lesion. Now for clinical purposes the very reverse arrangement should be adopted. The brain is an exceedingly complex organ, made up of dissimilar though intimately related parts. In each of its halves we have a cerebral hemisphere composed of different lobes; we have ganglia at the base, a crus cerebri, one half of the pons Varolii and of the medulla oblongata; and, in addition, we have the cerebellum as a possible seat of pathological change. We ought to endeavour to discriminate between the effects of injury to these several parts; and more especially ought this aspect of the question to force itself upon our attention since we know that the clinical grouping of symptoms may be almost indistinguishable when one of these regions is injured in the most different manner—either by hæmorrhage or by an equal damage produced by softening of brain-tissue. I am also aware that many important additions have of late years been made to our knowledge of the hemiplegic state, and since these at present can only be gleaned piecemeal from numerous contributions scattered through English and foreign journals and other works, they are thereby rendered practically inaccessible to most of you.

For these reasons, gentlemen, I have not hesitated to comply with the request made to me, and have determined to give a few lectures on the common forms of hemiplegia—on those forms in which the onset of the disease is more or less sudden. I shall take up the subject from a purely clinical point of view, although, for the reasons already stated, I shall endeavour to deal with it in as systematic a manner as possible. In attempting to sum up the state of our knowledge of this important subject in the manner proposed I know that I have set myself a most difficult task, and it is one from which I should shrink did I not feel that, however imperfectly I may accomplish it, I may yet make known to you many facts and some aspects of this important and many-sided subject with which you were not previously acquainted.

In endeavouring, therefore, to give you a connected view of the subject of hemiplegia, I shall first consider the *causes* or various pathological conditions which may produce this assemblage of symptoms, though we shall study these causes principally from their clinical aspects, and with the view of obtaining data for the purposes of diagnosis. We shall then more fully examine the *signs* and *symptoms* produced by these pathological conditions; and, having done this, I shall endeavour, however imperfectly, to show how these signs and symptoms are grouped when different portions of the brain are injured. Our knowledge is still, unfortunately, extremely defective in this direction, yet it does in many instances enable us to come to a differential diagnosis as to the region of the brain implicated. The clinical groupings of symptoms which present themselves have, in fact, to be interpreted by the aid of what knowledge we possess of cerebral anatomy and physiology. We thus strive, in any given case, to arrive at a *regional or anatomical diagnosis*. And this is not a matter of mere physiological interest; it is often of great importance in the consideration of prognosis. At the bedside this should always be our first attempt in the direction of diagnosis, whilst subsequently we should endeavour to determine the probable nature of the changes taking place in the affected region. This constitutes the second part of our diagnosis—what may be called the *pathological diagnosis*, as distinguished from that which is regional or anatomical. I shall have to point out to you, therefore, how to apply your knowledge of the causes of the disease towards the elucidation of this aspect of the question. In performing this part of your duty you will have to bring your clinical and pathological knowledge to a focus: you will have to take into account the ages at which the several pathological states are most apt to be met with, the general condition of the other organs with which they are most frequently associated, and the extent to which differences in the mode of onset of the symptoms may speak more strongly in favour of one or other kind of pathological change; and you will then have to consider the actual state of your patient, his age, and the mode of onset of his disease, in order to form an opinion as to the probable nature of the lesion. Lastly, gentlemen, we shall have to consider the important questions of *prognosis* and of the *treatment* to be employed in the various forms of hemiplegia.

Turning, therefore, first to the mode of *causation* of hemiplegia, we may tabulate its proximate causes in the following manner:—

1. Rupture of bloodvessels—hæmorrhage { *a*, On the surface of the brain. *b*, Into its substance.
2. Occlusion of vessels { *a*, Thrombosis *b*, Embolism } Softening.
3. Spasm of vessels and functional disturbance.
4. Fibroid indurations of portions of brain.
5. Tumours of brain and its meninges, including acephalocysts.
6. Abscess.
7. Traumatic injuries and their sequences (meningitis, &c.)
8. Congenital atrophy.

Now I propose to speak to you especially concerning the hemiplegias of rapid onset—those most commonly met with, and which are due to *rupture*, *occlusion*, or *spasm* of one or other of the cerebral bloodvessels. Much that I shall say will of course be applicable also to the rarer forms of hemiplegia—to those due to indurations, tumours, abscesses, injuries, or congenital atrophies of the brain-substance. I cannot, however, now attempt to follow up all the details relating to these more slowly arising and more irregular forms of hemiplegia. So that, confining ourselves within the limits just mentioned, we must look a little more closely at each of our three principal modes of causation.

Rupture of vessels, producing hæmorrhage. — Hæmorrhage into or upon the surface of the brain varies most widely both in situation and in amount in different cases. Effusions of blood also may be single or multiple in the same individual. Even where giving rise to obvious symptoms, the hæmorrhage may vary in amount from a minute clot not larger than a pea occurring in the pons Varolii, to an effusion of many ounces of blood which tears up the substance of one hemisphere and then fills the lateral ventricles.

With regard to the situation of the hæmorrhage, I will especially name the following sites, saying nothing at present concerning their relative frequency:—

I. Meningeal hæmorrhages; that is, effusions of blood on or pressing upon the surface of the brain.

II. Cerebral or cerebellar hæmorrhages; that is, effusions of blood into some portion of the substance of the brain. Under this last category we may recognise the following sites:—

1. In the substance of one of the hemispheres, with or without implication of the cortical substance; such hemisphere being roughly divided into (*a*) an anterior, (*b*) a middle, and (*c*) a posterior portion.
2. In or just outside the corpus striatum.
3. In or just outside the optic thalamus.
4. In either of the last two situations, together with effusion into the lateral ventricles.
5. In the crus cerebri.
6. In the pons Varolii. (*a*) In its centre; (*b*) in the upper part of one lateral half; (*c*) in the lower part of one lateral half.
7. In the cerebellum. (*a*) In one of its lateral lobes; (*b*) in its median lobe.

I have made no undue subdivision here. I have mentioned only those regions the injury of which we ought to endeavour to discriminate at the bedside. Lesions in some of these situations we are able to diagnose with great certainty, though between others we shall often have very great difficulty in deciding even if we do not find it quite impossible.

With regard to the *age* at which they are apt to occur, a considerable difference exists between meningeal hæmorrhages and those into the substance of the brain, though the latter do not in this respect differ much amongst themselves. Meningeal hæmorrhages tend to occur at a decidedly earlier age than cerebral hæmorrhages. In very young children, whose vessels are healthy, bleeding into the arachnoid may occur from any unusual amount of strain. This occurs sometimes during the act of birth, especially in prolonged labours. Indeed, according to Cruveilhier, arachnoid hæmorrhage is the cause of the death of about one-third of those infants who die almost immediately after birth. A little later on in life it may occur during paroxysms of whooping-cough, or in other conditions impeding the return of venous blood from the head. Later still it not unfrequently follows falls on or blows about the head, or it may result from the rupture of aneurisms on some one or other of the vessels at or near the base of the brain—an event which very rarely takes place in individuals under the fourteenth year, though thence onwards it is apt to occur pretty equally at different ages. These ruptured aneurisms are decidedly more common in males than in females; whilst, in respect to other sources of meningeal hæmorrhage, the disproportion is still greater in the same direction. Thus, of 163 recorded cases analysed by Gintrac, nearly three-fourths were males. If we add to these cases the 77 instances of hæmorrhage upon the surface of the brain from rupture of aneurisms on the larger cerebral vessels, analysed by the same author, we get a total of 240 cases of meningeal hæmorrhage, which are thus distributed in respect to age:—

1 day	to	10	years	...	...	...	...	10 cases.
11 years	„	20	„	...	...	...	...	19 „
21 „	„	30	„	...	...	...	...	27 „
31 „	„	40	„	...	...	...	...	52 „
41 „	„	50	„	...	...	...	...	33 „
51 „	„	60	„	...	...	...	...	41 „
61 „	„	70	„	...	...	...	...	32 „
71 „	„	80	„	...	...	...	...	26 „
								240 „

Putting aside for the moment the question as to the ages at which cerebral hæmorrhage is most prone to occur, I would call your attention to the very great frequency with which bleeding takes place into the substance of the brain as compared with other organs. This is doubtless due in great part to the softness of the brain, and to the consequent small amount of support to the vessels ramifying through its substance. No other organ but the spleen can compare with the brain in this respect; and that softness of tissue is one important factor in the production of cerebral hæmorrhage seems to be further indicated by the comparative rarity of hæmorrhage into the substance of the spinal cord, in which the connective tissues giving support to the vessels are more notably developed. The canals in which the vessels run are also much less wide in the spinal cord than they are in those parts of the brain in which hæmorrhages are so apt to occur. So that this peculiarity of the cerebral vessels—the fact that the small arteries lie almost unsupported, in canals of a larger diameter, as they ramify through the brain-substance—is doubtless another special cause rendering these vessels peculiarly liable to undergo degenerative changes, and to rupture under the influence of increased pressure from within. The canals in the substance of the corpora striata and also in other parts are often three times as wide as the vessels which they contain, as I have myself ascertained by actual measurement. Now this anatomical arrangement is peculiarly favourable to a kind of degeneration which has of late years been shown, by the observations of Charcot, Bouchard, and others, to be especially frequent in cases of cerebral hæmorrhage. I allude to the frequent occurrence of those small miliary aneurisms which recent researches have shown to be so common in elderly people who have died from cerebral hæmorrhage—the hæmorrhage itself resulting from the rupture of one or more of them. Fibroid changes in the walls of the vessels especially predispose to these vascular dilatations, though we know that fatty or atheromatous degenerations are also very frequent in the cerebral vessels and that they tend to increase in direct proportion to the age of the individual. Thus, whilst the softness of the organ and the lack of support to its vessels might be supposed to favour the occurrence of their rupture at any age in cases where their coats are subjected to a very undue amount of strain, so we might also expect that these influences would become more and more operative with advancing age, owing to the increase of vascular degeneration which this entails. And this seems to be practically what does occur, if we may judge from the statistics collected by Gintrac. This indefatigable worker has analysed 658 cases of hæmorrhage into different portions of the substance of the brain, which are thus distributed according to age:—

Birth	to	10th	year	...	...	...	...	15 cases.
11th	„	20th	„	...	...	...	...	24 „
21st	„	30th	„	...	...	...	...	44 „
31st	„	40th	„	...	...	...	...	74 „
41st	„	50th	„	...	...	...	...	98 „
51st	„	60th	„	...	...	...	...	129 „
61st	„	70th	„	...	...	...	...	152 „
71st	„	80th	„	...	...	...	...	110 „
81st	„	90th	„	...	...	...	...	12 „
								658 „

Childhood, youth, or early adult age does not therefore by any means preclude the diagnosis of cerebral hæmorrhage in any given case, though reference to the figures which I have previously given you will show that at these periods of life meningeal hæmorrhages are proportionately much more frequent. On the other hand, as we approach middle life and old age hæmorrhages into the substance of the brain become more and more frequent. The diminution in numbers after the seventieth year is, as Sir G. Burrows long ago showed, only apparent, owing to the smaller number of people who live after this age has been attained.

With regard to the most common seats of hæmorrhages within the skull, it is not easy to arrive at correct information, because we are apt to find an undue proportion of rare cases put upon record. Still, if we look to large numbers, we obtain data of a certain value. In a total of 751 cases of hæmorrhage within the cranium, Gintrac found it recurring in different situations in the following manner:—Meninges, 172; cortical substance of the hemispheres, 45; middle lobes of the brain, 127; posterior lobes, 33; anterior lobes, 17; corpora striata, 72; optic thalami, 38; pons and cerebral peduncles, 76; medulla, 2; cerebellum, 55. The great frequency of hæmorrhage into the middle lobes of the brain is a very striking fact. It is in part explicable by the far greater bulk of the middle portion of the brain—roughly spoken of as its middle lobe—as compared with that of the anterior or of the posterior segments of the hemisphere, though it is still further explicable if we consider the mode of distribution of the vessels to these different parts.

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We turn now to the next common cause of hemiplegia—*occlusion of vessels*, whether by thrombosis or by embolism. This event leads to pathological consequences and clinical symptoms just as important as those produced by rupture of bloodvessels; and whether the occlusion be due to gradual coagulation of the blood in any given vessel, or to the impaction in the same site of some foreign substance brought from the heart or elsewhere, the pathological consequences are much the same—some amount of softening occurs in each case—so long as the occlusion be in one of the vessels situated on the distal side of the circle of Willis. The portion of brain-tissue previously supplied by the occluded vessel is cut off from its blood-supply; the peripheral portions of the vascular area become hyperæmic and serum is effused, whilst the central portions at once begin to undergo fatty and degenerative changes, resulting in the course of a few days in a focus of "softening," or cerebral *ramollissement*. This seems to be by far the most frequent cause of softening of the brain. Where the condition is of inflammatory origin it is secondary to other changes, such as traumatic injuries or adventitious products, which will not now come under our consideration. Several patches of softening may be found coexisting in the same brain, and the foci themselves may be very minute, or so extensive as to involve nearly the whole of one or perhaps both hemispheres.

Now, clinically, it matters very little—that is, so far as the symptoms ultimately produced are concerned—whether a given portion of the brain-tissue is broken up by an effusion of blood into its substance, or is rendered functionally inert by a process of softening. You must not forget, however, that in the latter class of cases the hemiplegic symptoms are first produced by the cutting off of the blood-supply from a certain portion of the brain-tissue, and that softening is only one of the after-effects resulting from this deprivation of blood. It is important to bear this in mind because should death occur within forty-eight hours from the onset of apoplectic or hemiplegic symptoms no softening may be discoverable, simply because there has not been sufficient time for this pathological condition to become established. If therefore in such a case you find no hæmorrhage, or no patch of softening, you must not come to the conclusion that you have to do with a case of "simple apoplexy." You must search diligently for some vascular occlusions—more especially in many of the minute arteries—rather than rest content with such a very questionable diagnosis.

I must now say a few words to you concerning each of the common causes of softening of the brain.

Thrombosis is a process which may occur either in arteries or in veins, but as a cause of hemiplegia we have almost always to deal with it in one or other of the cerebral arteries, or else in several of them simultaneously. The local coagulation or separation of fibrine in certain vessels of which the process of thrombosis consists, is determined in part by general causes tending to alter the quality of the blood, and in part by local degenerative states of the coats of the vessels themselves. Under this head of general causes I may specify certain cachectic states of the system in which the blood is altered in quality and rendered more than usually prone to coagulate. This seems to occur occasionally in the period of convalescence from acute diseases, and also in women after parturition. The process is always favoured by a slow and weak action of the heart. The principal local causes of thrombosis are pathological changes in the coats of the vessels, whereby their inner coat is roughened and their calibre is narrowed. Thus it is favoured by all fibroid thickenings and indurations of vessels, both syphilitic and non-syphilitic, and by atheromatous or calcareous changes, which either roughen the surface or expose the blood to the coagulating influence of not-living components of the vascular wall. Where general conditions are powerfully aided by local degenerative changes, thrombosis is of course most prone to occur, but in some cases general conditions alone seem to suffice without the determining influence of marked degenerative change, and this is the reason why thrombosis is almost as common in early adult life as it is at later periods. It may occur in any of the vessels at the base of the brain, or in several of them at the same time, as we find not unfrequently in association with a process of clotting in one of the internal carotid arteries.

Embolism may also be met with in any of the vessels beyond the circle of Willis, though it is especially prone to occur in the Sylvian or middle cerebral arteries, and more frequently in the left than in the right, so that hemiplegia from this cause is most frequently right-sided in its distribution. Embolism may take place at any period of life, and is, indeed, much more frequent under the fortieth year than after that period. The emboli, or obstructing masses, vary both as to nature and origin. They may consist of fibrinous masses swept away from "vegetations" on the valves of the heart, or from bodies of the same nature on the lining membrane of the left auricle, or on any part of the aorta anterior to the origin of the great vessels which carry blood to the brain. More rarely the embolon may be a detached fragment of a thrombus, formed in the pulmonary vein, which enters the left cavities of the heart, and is thence swept onwards to the cerebral vessels; whilst at other times it is derived from the crumbling of a fibrinous concretion which has formed in connexion with the left auricle or ventricle. In instances of this latter description, or where a large atheromatous depôt in the aorta discharges a quantity of débris into the circulation, we may have multitudes of small embolisms in certain vascular areas instead of a stoppage of the main trunk by a larger occluding mass; and these accidents seem to be particularly liable to produce a rapidly fatal apoplectic condition. In cases where the occlusion of a main vessel is not perfectly brought about by the impacted body, the stoppage is soon completed by local clotting or thrombosis, which takes place on the distal side of the embolon.

I have lastly to speak of *spasm of the vessels* as one of the causes capable of rapidly producing a hemiplegic condition. Now there is a great deal of uncertainty about this part of the subject. Spasm of the vessels may not be the efficient cause, although most likely it has always something to do with the condition of functional derangement to which I now desire to call your attention. There probably exists in these cases an altered molecular state in certain regions of the brain-tissue which for a time renders it unfit to discharge its proper functions, although there may be no change visible to the naked eye or even by the aid of the microscope. There can be no doubt that many cases of hemiplegia must be placed in this category; and if I for brevity's sake speak of them under the head of "spasm of vessels," you must not suppose that I regard this as the sole explanation of the state itself which immediately gives rise to the paralysis. We here group many of the cases of epileptic hemiplegia and of emotional hemiplegia, and perhaps a very few rare cases of an hysterical character. We may take epileptic hemiplegia as a type of the condition. A patient suffers from unilateral convulsions from time to time; and after one of these attacks, perhaps a little more severe than usual, he is found to be paralysed on the same side of the body. The hemiplegia is of the ordinary kind, only it is altogether temporary in its duration. It lasts for a few hours, for a few days, or perhaps for a week or more, and then the patient rapidly and completely regains power in the paralysed limbs. Now here the convulsions had previously affected the same muscles, and these in the same relative proportion as were afterwards rendered for a time powerless. The rapid and complete recovery compels us to believe that a mere molecular damage of a recoverable kind must have taken place in the nerve-elements, hindering their proper life-changes, and so putting a stop for a time to their functional manifestations. And the result may be very similar in certain cases of fright, sudden surprise, or other emotional disturbance. In these cases a large amount of nervous energy is liberated in the cerebral hemispheres, and a rapid downrush occurs upon the motor ganglia at the base of the brain, as we see by the cries and sudden muscular movements which accompany such states. This sudden downrush of energy or "discharge" upon the motor ganglia induced by emotional causes, whilst it often produces chorea, seems occasionally to induce the same temporary paralysis as that which is produced by the nervous discharges in an attack of unilateral epilepsy. In each case, if we have to do merely with spasm of vessels and molecular changes in nerve-tissue, the condition is one in which recovery or molecular restoration takes place. We must not forget, however, that the exciting causes of such attacks may entail further changes. They may at the time give rise not merely to spasm, but to actual rupture of vessels in the motor ganglia, or they may set up irritative changes in the nerve-

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tissue which may subsequently lead to the establishment of thrombosis in the part. Thus whilst we may have a simple and rapidly recoverable form of hemiplegia induced by an epileptic fit or by a sudden emotional disturbance, we must not forget that in other cases these events may lead to more permanent damage in the parts of the brain affected, which would compel us to remove such cases from our present category. And of this we have recently had a good example under our observation. I allude to the case of a woman, lately in our wards, in whom a more permanent hemiplegic condition was suddenly established under the influence of strong emotion. There is good reason for believing that the functional and other changes to which I have just been referring take place principally in the corpus striatum, though in some cases they may also involve the pons Varolii, as I shall afterwards endeavour to show.

THE

Croonian Lectures

ON

FUNCTIONAL DERANGEMENTS OF THE LIVER.

Delivered at the Royal College of Physicians,

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LECTURE III.—PART I.

VI. *Derangements of the Organs of Circulation.* 1, *Palpitations and Flutterings of the Heart;* 2, *Exaggerated Pulsation of the Large Arteries;* 3, *Irregularities and Intermissions of the Pulse;* 4, *Feeble Circulation;* 5, *Anæmia;* 6, *Angina Pectoris.* — VII. *Derangements of Organs of Respiration.* 1, *Chronic Catarrh of Fauces;* 2, *Bronchitis;* 3, *Spasmodic Asthma.* — VIII. *Derangements of the Urinary Organs.* 1, *Deposits of Lithic Acid and Lithates in Urine;* 2, *Renal Calculi;* 3, *Diseases of Kidneys;* 4, *Cystitis.* — IX. *Abnormal Conditions of Skin.* 1, *Eczema, Lepra, Psoriasis, and Lichen;* 2, *Urticaria;* 3, *Boils and Carbuncles;* 4, *Pigment Spots;* 5, *Xanthelasma;* 6, *Pruritus.* — *C.* CAUSES OF FUNCTIONAL DERANGEMENTS OF THE LIVER. I. SECONDARY. 1, *Structural Diseases of the Liver;* 2, *Disorders of Stomach and Bowels;* 3, *Diseases of Heart and Lungs;* 4, *Pyrexia.* — II. PRIMARY. 1, *Errors in Diet;* 2, *Deficient Supply of Oxygen;* 3, *High Temperature;* 4, *Nervous Influences;* 5, *Constitutional Peculiarities;* 6, *Poisons.* — *D.* TREATMENT OF FUNCTIONAL DERANGEMENTS OF THE LIVER. 1, *Diet;* 2, *Free Supply of Oxygen;* 3, *Aperients—Cholagogues;* 4, *Alkalies;* 5, *Chlorine, Iodine, Bromine, and their Salts;* 6, *Mineral Acids;* 7, *Tonics;* 8, *Opium. Concluding Remarks.*

MR. PRESIDENT, FELLOWS OF THE COLLEGE, AND GENTLEMEN,—In my last lecture I considered some of the more important diseases and symptoms resulting from abnormal disintegration of albuminous matter in the liver. I have still to refer to certain derangements of the organs of circulation and respiration, and abnormal states of the skin traceable to the same cause. I shall then mention some of the chief causes of functional derangements of the liver, and conclude the lecture by a brief sketch of the principal rules for treatment of these derangements.

VI. *Derangements of the Organs of Circulation.*

1. *Palpitations and flutterings of the heart.*—Indigestion has long been regarded as one of the causes of palpitation independent of organic disease of the heart. Many patients with this functional derangement of the heart describe their sensations as that of a transient fluttering rather than a continuous palpitation; and when this feeling of fluttering comes to be investigated, it usually turns out to be produced by a strong thump of the apex of the heart following one or more weaker beats or a decided stop. In some of these cases of palpitation and fluttering, a prominent symptom of the indigestion is flatulence; and then the common explanation of the cardiac symptoms is, that they are due to the pressure upon the heart of the distended stomach and bowels. And this explanation receives support from the fact that, on the removal of the flatulence, the cardiac symptoms are often relieved or cease. But in other of these cases the flatulence may be entirely removed, while the cardiac symptoms remain; while in others there is not the slightest evidence of flatulence, and still the cardiac symptoms are removed by remedies—such as alkalies and aperients—calculated to improve the condition of the liver. It seems probable, therefore, that in some, if not in many, cases, when flatulence and palpitations coexist, they do not stand in the relation of cause and effect, but are both the result of a common cause. Palpitations, and still more flutterings, of the heart are particularly common in gouty people, whether they suffer from dyspeptic symptoms or not. Everyone present must have met with cases of the sort. Scudamore relates cases in which patients suffered from severe palpitations for six months without any relief from medicine; but, on the occurrence of a fit of gout, the palpitations suddenly and entirely ceased.* Dr. Garrod, in his work "On Gout," remarks: "One of the most common symptoms produced by a gouty state of the system is palpitation of the heart, often accompanied by irregularity of its rhythm, and occasionally with pulsation of some of the larger arteries. In the majority of these cases the condition is secondary to dyspepsia, but at times it may be directly excited by the impure condition of the blood; and I have notes of some cases in which no organic mischief could be discovered in the heart, nor any signs of indigestion, and the symptoms ceased on the occurrence of gout in the joints."† These cardiac symptoms are also very common in persons who are the subjects of lithæmia, but who never have gout. They are often the first symptoms to draw the patient's notice to the fact that his health is not what it ought to be; they cause great depression of spirits; and very often they are aggravated by injudicious treatment, and especially by the use of iron, which may seem to be indicated by the patient's anæmic aspect, but which is rarely tolerated until the liver has been brought into a healthy state by alkalies, aperients, and attention to diet. Although in the cases now referred to the cardiac symptoms result from pneumogastric irritation by a poison in the blood, the fact already referred to must not be lost sight of, that this same morbid state of blood may ultimately lead to degeneration of the muscular wall of the heart, or disease of the aortic valves.

2. *Exaggerated pulsation of the large arteries.*—Dr. Matthew Baillie, in a communication made to this College on December 2nd, 1812, was the first to call attention to cases of increased pulsation of the aorta in the epigastric region, simulating aneurism, but in some instances lasting twenty-five years or longer, and the result merely of "imperfect digestion with an irritable constitution."‡ This exaggerated pulsation, not only of the aorta, but of other arteries, independent of either contracted kidney or aortic regurgitation, is now well known, and one cause of it appears to be a morbid state of blood resulting from derangement of the liver, and often associated with gout. Scudamore relates cases of palpitations in the head occurring in persons afflicted with bilious derangement and gout; and likewise the case of a gentleman who had gout and bilious derangement, and who suffered alternately from palpitation of the heart and pulsation of the aorta in the epigastric region.§ Garrod also speaks of an irritable state of the aorta and pulsation of the larger arteries as occasionally resulting from gout.‖ The undue pulsation in these cases is often subdued by treatment directed against the liver.

3. *Irregularities and intermissions of the pulse.*—An intermitting pulse, which may or may not be attended by the sensation of fluttering of the heart already referred to, may result from a variety of causes, of which the principal are these:

(*a*) Valvular and other diseases of the heart. In organic diseases of the heart, however, irregularity of the rhythm is more common than decided intermission.

(*b*) A weakened or unduly irritable state of the nervous

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* Op. cit., pp. 16, 98, 374.

† Nature and Treatment of Gout, 1859, p. 510.

‡ Medical Transactions, published by the College of Physicians, 1813, vol iv., p. 274.

§ Op. cit., p. 93. ‖ Op. cit., pp. 510, 511.

system, such as that which often occurs in old age or sometimes appears to be constitutional, or those which are induced by fevers, delirium tremens, hysteria, protracted want of sleep, anxiety, &c.

(c) Morbid states of the blood, associated with gout or lithæmia, or with other evidence of hepatic derangement. It has been the fashion to attribute the intermission in these last cases to pneumogastric irritation by gastric dyspepsia or flatulence, but, just as we found in vertigo, there is very often neither flatulence nor other evidence of gastric derangement; and my experience has led me to the conclusion that in most of these cases the pneumogastric irritation has a toxic origin, or is due to the presence in the blood of some morbid material resulting from derangement of the liver. What this material is we do not with certainty know. It is not uncommon for the pulse to become very slow, or even to be irregular or to intermit, in jaundice. These symptoms do not appear to be due to the presence of bile-pigment in the blood, for in many cases of jaundice they are absent; but some experiments made a few years since by Röhrig showed that the bile-acids paralyse the heart and retard its action, while bile-pigment has no such effect.* It is possible, then, that slowness and intermission of the pulse may be caused by the presence in the blood of unchanged bile-acids, even in cases where there is no jaundice; but more probably the cause of the intermission is some other product of albuminous disintegration, inasmuch as it is so commonly met with in connexion with lithæmia or gout, and as it is often entirely removed by blue pill, saline aperients, alkalies, and attention to diet. A notable fact in these cases is that the tendency of the pulse to intermit is usually greatest when the patient is at rest, and is diminished or ceases on his taking exercise. As in the case of vertigo or sleeplessness, the intermission may be excited by particular articles of diet. It may last for many years, during which the patient may enjoy very fair health and be capable of considerable exertion. I lately saw a gentleman, aged eighty, who had had an intermitting pulse for upwards of fifty years. He had suffered from gout and dyspepsia, but in his eightieth year he could walk long distances and up moderate ascents without difficulty. It is also worth noting that intermission of the pulse may last for years, and then entirely disappear. Dr. C. Lasègue of Paris, who has published an interesting memoir† upon intermitting pulse, thinks that it is chiefly met with under two conditions—viz., (1) as an accompaniment of some chronic general morbid state, which is the prelude of some more acute mischief, on the development of which the intermissions may cease; and (2) as the accompaniment of a general morbid state consequent on the first establishment of some local disease, the general cachexia and the intermitting pulse after a time disappearing, although the primary local disease remains. The following case, communicated to me by Mr. Paul Jackson, is a remarkable illustration of the complete disappearance of the intermission after a duration of several years, and also of its toxic origin.

About the year 1838, Mr. J. T——, then forty-two years of age, of nervous temperament, a generous liver, and subject to hepatic derangement, began to suffer from intermission of the pulse, and a fluttering sensation at the heart. He had no dyspnœa or other symptom of cardiac disease, and there was no abnormal cardiac murmur. He saw a great many physicians, but got no relief; but, after upwards of three years, he had a severe attack of urticaria, whereupon the intermission and the fluttering entirely and for ever ceased. He lived for twenty years afterwards, and, with the exception of occasional attacks of gout and of sudden vertigo, he enjoyed good health. He died at last, however, suddenly, of rupture of the heart, at the age of sixty-five.

It may be well to add that, even when intermitting pulse coexists with valvular disease of the heart, it appears to be sometimes due to hepatic derangement rather than to the cardiac lesion. Take, for example, aortic incompetence. The rhythm of the pulse in this lesion is usually regular; but, in rare instances, it is irregular and intermitting. From the supervention of this symptom the patient's condition is often believed to have become more perilous, and yet there may be no aggravation of the other cardiac symptoms. The pulse may become regular, instead of more intermitting, after exercise, and the intermission may be entirely removed by the same remedies as are effectual when there is no cardiac disease. That the intermission of the pulse should be independent of the cardiac lesion is not surprising when we remember that atheroma of the arteries, which is the main cause of aortic incompetence occurring in middle or advanced life,* and intermitting pulse may both result from the lithic-acid dyscrasia. The following case is an illustration of what I have just stated.

A discharged soldier, aged fifty-six, came under my care in July, 1873, for what appeared to be muscular or neuralgic pains. He was found to have aortic incompetence, but he had never had any symptom of cardiac disease—pain, palpitation, or dyspnœa; and he had been employed as a porter in a public institution, one of his duties being to carry heavy coal-scuttles up long stairs, from which he had apparently suffered no inconvenience. His pulse was quite regular. He was treated with quinine; but he left the hospital after some weeks, not much relieved, and returned to his work. In December he again came to me, complaining of pain in his right shoulder and constipation; his pulse was now very intermitting, and he had also a frequent feeling of fluttering about his heart. He had no other cardiac symptom; and, on walking, his pulse became regular. He was treated with blue pill, colchicum, aperients, alkalies, and iodide of potassium; and in a short time the pain in the shoulder, the fluttering, and the intermission disappeared.

4. *Feeble circulation.*—In cases of protracted hepatic derangement, symptoms of feeble circulation, which may be independent of palpitations or irregularities of the pulse, are not uncommon; the patient complains of languor, debility, and coldness of the extremities; the heart is found to beat feebly, but to be free from organic disease; there is evidence of hepatic derangement, and the urine often deposits lithates. Iron, quinine, and alcoholic stimulants, which are frequently prescribed for this condition, may render the patient worse instead of better, and the surest way to increase the strength of the heart is to avoid alcohol and relieve the liver.

5. *Anæmia.*—(See page 504.)

6. *Angina pectoris.*—The neuralgic affection known as angina pectoris probably arises in many different ways. One cause appears to be the lithic-acid dyscrasia. It is now many years since an English physician, Dr. William Butler, described certain cases of this affection as diaphragmatic gout. The patients had been careless as to diet, and "particularly fond of the stronger malt liquors"; the urine deposited "a copious gross sediment"; and the attack might terminate in a fit of the gout.† Many writers have since then described a "gouty cardialgia"; and, more recently, Trousseau has pointed out that certain cases of angina pectoris are independent of any disease of the heart or great vessels, and are merely "a manifestation of the gouty diathesis."‡ Not long since I saw a gentleman, aged sixty-five, who complained of awaking in the night three or four times a week with violent pain in the cardiac region, extending up to the left shoulder and down the left arm. I could discover no sign of disease in his heart. He stated that six years before he had suffered for months from similar attacks, but had recovered under medical treatment. He had never had gout, but he was very careless as to his diet, and his brother I knew to be a martyr to gout.

VII.—*Derangements of the Organs of Respiration.*

1. *Chronic catarrh of the fauces.*—The subjects of gout or lithæmia are very liable to an habitual excess of mucous secretion in the fauces and at the back of the nose, which usually accumulates during the night, and which may be associated with a troublesome cough. Errors in diet usually increase the amount of phlegm, and may cause an extension of the catarrh, with hoarseness of the voice, and this may account for Scudamore's statement that a cough with much mucous secretion in the trachea sometimes precedes a fit of gout.§

2. *Chronic bronchitis.*—The researches of Trousseau,‖ of our colleague Dr. Greenhow,¶ and of other observers, have

* Archiv für Heilkunde, August, 1863, p. 385.
† Des Intermittences Cardiaques, par le Dr. C. Lasègue; Arch. Gén. de Méd., December, 1872.

* I do not remember to have met with intermitting pulse in cases of aortic incompetence of rheumatic origin.
† Treatise on Angina Pectoris, second edition. London, 1806.
‡ Op. cit., vol. iv., p. 379.
§ Op. cit., pp. 17, 377.
‖ Op. cit., vol. iv., p. 381.
¶ On Chronic Bronchitis, 1869, p. 55.

clearly proved that chronic bronchitis has in many instances a similar pathology to that of gout, and, therefore, originates in functional derangement of the liver. Gout and bronchitis are very common in the same families; gout is disproportionately common among bronchitic patients, and the two diseases often alternate with one another in the same individual, gout subsiding on the development of bronchitis, and bronchitis being relieved on the appearance of gout; while the bronchitis is benefited by the same remedies as are useful in gout. Moreover, persons who have never had gout, and do not come of a gouty stock, but who are the subjects of lithæmia, are also very prone to bronchitis.

3. *Spasmodic asthma.*—Although spasmodic asthma consists essentially in a morbid proclivity of the musculo-nervous system of the bronchial tubes to be thrown into a state of activity, the stimulus to contraction appears in some patients to be toxic, or it consists in the presence of some morbid material in the blood. "When," remarks Dr. Todd,* "the *materies morbi* of asthma has been generated, its effect is to irritate the nervous system, not generally, but certain parts of it, these parts being the nerves concerned in the function of respiration—viz., the pneumogastric and the nerves that supply the respiratory muscles, either at their peripheral extremities or at their central termination in the medulla oblongata and spinal cord." The nature of this *materies morbi* appears to be very similar to that of gout, and, like that of gout, it appears to be due to derangement of the blood-changes of which the liver is the principal seat. Asthma, like gout, is a hereditary disease; it is common among persons springing from a gouty stock; it is not unfrequently associated with gout in the same individual, and attacks of asthma have been known to alternate periodically with attacks of gout. Moreover, an asthmatic paroxysm, like an attack of gout, of vertigo, or sleeplessness, is often excited by a fit of indigestion and by the use of particular articles of diet. Our late colleague, Dr. Hyde Salter, who did so much to throw light upon the pathology of asthma, was of opinion that the asthmatic paroxysm in the cases now referred to was produced by "the actual presence in the vessels of the lungs of the materials taken up from the stomach and intestines";† but it seems to me that the *materies morbi* is far more likely to be a product of hepatic derangement consequent on the unwholesome ingesta, as in the analogous attacks of gout, vertigo, &c.

VIII.—*Derangements of the Urinary Organs.*

The remarks which I have already made render it unnecessary for me to insist further on the tendency of functional derangement of the liver to produce urinary symptoms. I will merely repeat that hepatic disorder is a common cause of—

1. *Deposit of lithic acid and lithates in the urine.*
2. *Renal calculi.*
3. *Diseases of the kidneys.*

I will now add—

4. *Cystitis* is occasionally excited by the lithic-acid diathesis. ‡

IX.—*Abnormal Conditions of the Skin.*

There is good evidence that many disorders of the skin originate in derangements of the process of oxidation or disintegration which go on in the liver.

1. Almost all observers are agreed that *eczema*, *lepra*, *psoriasis*, and *lichen* may arise from lithæmia. Many years ago, the late Sir Henry Holland remarked that he had "so often seen psoriasis prevailing in gouty families—sometimes alternating with acute attacks of that disease, sometimes suspended by them, sometimes seeming to prevent them in individuals thus disposed—that it is difficult not to assign the same morbid cause to these results."§ Our late distinguished President, Sir Thos. Watson, in his "Practice of Medicine," speaks of lepra and psoriasis as blood diseases depending upon some poison bred within the body.‖ Dr. Garrod also bears testimony to the frequent connexion of eczema and psoriasis with gout. My own experience fully bears out the correctness of these observations; but, in many cases, these cutaneous diseases appear to arise from the functional derangement of the liver which often precedes gout, although neither the patient nor any member of his family has ever suffered from this disease. On this point, Dr. Tilbury Fox, in his recent work on cutaneous diseases, makes the following pertinent remarks:—"All disorders which are connected with retention of excreta in the system, and their circulation throughout the blood-current, may furnish the exciting cause of eczema. This is a clinical fact of very great importance. Given the tendency to eczema, then the transmission of uric acid through the capillaries of the skin will so far derange as to aggravate certainly, and now and again excite, an eczematous eruption. This is what is meant by gouty eczema; and, by securing the absence of uric acid from the circulation, the eczema will often disappear, and always be more amenable to treatment. . . . Such cases as I now refer to sometimes exist off and on for years, and are saturated with arsenic and mercurials, but are only relieved by recognising the complicating item of the free production of circulation of uric acid, and by instituting a *régime* calculated to arrest the continuance of those conditions."* Dr. Fox also calls attention to the fact that children with eczema have often white stools †

2. *Urticaria* I have not unfrequently met with in connexion with jaundice and other derangements of the liver. The late Dr. Graves observed eight or nine instances of persons suffering from acute rheumatism who became suddenly jaundiced from the supervention of hepatitis (congestion of liver?), and in whom the jaundice was followed by urticaria. ‡ Among the causes of urticaria, Dr. Tilbury Fox mentions "the circulation of acrid or effete products—for example, uric acid, bile, &c., which, coming to the surface, become oxidised and more active." § He also mentions that "asthma has been observed to be associated with urticaria in a peculiar manner," ‖ an association which is readily explained by the foregoing remarks. Scudamore refers to violent urticaria as existing for two days before a gouty paroxysm,¶ and I have myself known patients in whom champagne or certain articles of diet have almost invariably produced either gout or urticaria. Recently I have had under my care a boy, aged nine, with *urticaria tuberosa* and *purpura urticans*, complicated with hæmorrhages from the bowels, kidneys, and urinary passages, and with the discharge of much lithic acid in the urine, which there was good reason for suspecting to be due, in the first instance, to functional derangement of the liver.

3. *Boils and Carbuncles* are occasionally observed in connexion with jaundice, and are also excited by the presence in the blood of urea and other effete products. In the connexion also between phlegmonous or carbuncular inflammation and diabetes it is possible again to trace the influence of a disordered liver in the production of skin diseases.

4. *Pigment-spots* of various sorts on the face, hands, and other parts of the body, are not uncommon in functional derangements of the liver. They are sometimes designated "liver-spots" by non-professional persons, who, perhaps, attach too much importance to them as indicative of hepatic derangement. They may, as Dr. Laycock observes, be induced by imperfect oxidation or excessive production of carbon, in derangements of the liver,** but they may also arise in other ways.

5. *Xanthelasma or Vitiligoidea*, which consists in a fatty degeneration of the subcutaneous or submucous tissue analogous to atheroma,†† is a remarkable affection of the skin, which was first described in a joint memoir by the late Dr. Addison and Sir William Gull.‡‡ It occurs in two forms: either as tubercles, varying from the size of a pin's head to that of a large pea, isolated or confluent; or, more commonly, as yellowish patches, of irregular outline, slightly elevated, and not at all indurated. The tubercles are most numerous on the face and ears, on the outside and back of the forearms, and especially about the elbows and knees. The yellow patches are always first observed on the eyelids, usually near the inner canthus; but they may subsequently appear on the neck, the palms and flexures of the fingers, and even on the gums. The more severe forms are almost always associated with persistent jaundice and great

* Medical Gazette, December, 1850. † On Asthma, 1860, pp. 46, 117.
‡ See Garrod, op. cit., p. 512. § Medical Notes and Reflections.
‖ Lectures on the Principles and Practice of Medicine, fifth edition, 1871, vol. ii., p. 1023.

* Skin Diseases, third edition, 1873, p. 175. † Ib., p. 11.
‡ Clinical Lectures on the Practice of Medicine, second edition, vol. i., p. 446. § Op. cit., p. 120. ‖ Ibid., p. 121.
¶ Op. cit., p. 103. ** Fox, op. cit., p. 404.
†† See Pathological Transactions, vol. xx., p. 187; and vol. xxiv., p. 242.
‡‡ Guy's Hospital Reports, second series, 1851, vol. vii., p. 265.

enlargement of the liver,* which may subside under treatment; and in most cases where there has been no jaundice the patients have been of middle or advanced age, and there has been a history of frequent and severe attacks of functional disturbance of the liver.† It may be added that several cases of xanthelasma have been observed where there has been diabetes, but no jaundice.‡ In some instances the disease appears to be hereditary.

6. *Pruritus* is a troublesome symptom which often results from hepatic derangement. It is known to be a frequent accompaniment of jaundice; but it is not due to the presence of bile in the blood, for in many cases of jaundice it is absent, and I have repeatedly known it precede the appearance of jaundice by several weeks, or cease while the jaundice persisted. Moreover, I have frequently known itchiness of the skin a source of extreme distress to patients with hepatic derangement but without any jaundice. It may attack various parts of the body in succession, or it may be universal. It is unattended by any eruption. It is always worse in heated rooms and after stimulating food, and it is greatly aggravated by scratching. This symptom is not uncommon in gouty people§ and in the subjects of the lithic-acid diathesis, and it is often removed by attention to diet and a few doses of blue pill and alkalies. As Dr. Bence Jones has observed, "itching, nettle-rash, eczema, and herpes are the outburst of an over-acid state." ‖

C.—CAUSES OF FUNCTIONAL DERANGEMENT OF THE LIVER.

The remarks which I shall make under this head will be restricted to abnormal disintegration in the liver. The causes of diabetes and of certain other functional derangements of the liver have been already referred to. The disorder of the liver which induces lithæmia may be primary, or secondary to other morbid states of the body. It is with the former that we are now chiefly concerned; but the main causes of secondary derangement of the liver may be briefly referred to. They are as follow:—

1. *All structural diseases of the liver* derange more or less the functions of the organ. These derangements are usually judged of solely by the characters of the alvine evacuations; and the far more important functions of sanguification and depuration of the blood performed by the liver are lost sight of. But it is well to remember that in structural diseases of the liver these functions may be seriously deranged without any obvious change in the characters of the stools. In all structural diseases of the liver, unattended by fever and involving a considerable destruction of the glandular tissue, there is a tendency to a diminished excretion of urea, and an increase of lithates in the urine, and before long the patient becomes anæmic. At last symptoms of blood-poisoning may supervene, although there may be no jaundice and plenty of bile in the motions. These results are well seen in acute atrophy of the liver; but are also notable, though in a less degree, in abscess, cirrhosis, cancer, &c.

2. *Disorders of the gastric and intestinal digestion* often lead to secondary derangement of the liver. For example, the liver may become deranged as the result of gastric dyspepsia, or of protracted constipation from atony of the bowels, or deficient intestinal secretion; and sometimes it may be difficult to say whether the hepatic derangement is primary or secondary.

3. *Diseases of the heart and lungs*, by obstructing the circulation and impeding oxidation, are a common cause of functional, and ultimately indeed of structural, disease of the liver. It is unnecessary for me here to insist on the frequency with which the symptoms of valvular disease of the heart are aggravated by those of functional derangement of the liver, and on the necessity of attending to these in the treatment of the primary disease.

4. *Pyrexia.*—In all diseases attended by pyrexia, whether arising from some general cause, such as a specific poison, or from a local inflammation, there is more or less functional derangement of the liver. The liver, indeed, plays a prominent part in the pathology of the febrile process. It is one of the few parts of the body which do not waste during the fever. On the contrary, it becomes enlarged and congested, while its gland-cells are swollen out with minute albuminous granules; and it is well known that these changes are attended by an increased disintegration of albuminous matter, and an increased production of urea and less oxidised products. On the cessation of the febrile process the liver resumes its normal functions; but now and then it happens that, after a severe attack of fever, these functions are permanently impaired. I have repeatedly known a permanent tendency to hepatic derangement induced by a severe attack of typhus, enteric, malarious, or scarlet fever, in persons who had exhibited no such tendency previously.

Functional derangements of the liver, when primary, may be due to a variety of causes. Of these, the principal are:

1. *Errors in diet.*—There can be no doubt that the present system of living, and especially the consumption of even what are regarded as average quantities of rich food and stimulating drinks, contribute largely to derange the liver. It will be generally admitted, nor would it be difficult to prove, that most persons are in the habit of eating a quantity of food far greater than suffices to maintain the nutrition of the body. Much of this excess is fortunately never assimilated, and is got rid of in the fæces; but very often much more is taken into the blood than can be converted into tissue, or pass through the ordinary processes of oxidation preparatory to elimination. The result is that the excess of food is thrown out in an imperfectly oxidised form by the kidneys, lungs, &c., or accumulates in the system; while more work is thrown upon the liver than it can readily perform, and functional derangement of the organ ultimately ensues. With regard to individual principles of food, speaking generally, it may be said that the liver is most apt to be deranged by saccharine and fatty substances. The derangement of the liver which leads to lithæmia or gout is more likely to be induced by even small quantities of these substances, than by a moderate excess of purely nitrogenous food, such as meat. Cooked articles of diet containing a large proportion of both sugar and fatty matter are in many persons certain to derange the liver. The excess of carbon in these substances must either be deposited as fat, or must take away the oxygen, so as to leave little free to act on the nitrogenous matter passing out from the tissues or derived from the food; and hence, as Dr. Bence Jones has observed in speaking of gout, "with carbonaceous diet in excess, the whole of the uric acid from the tissues might pass off through the blood unoxidised."* There are also constitutional peculiarities with regard to many articles of food, which always derange the liver in certain individuals, though they are comparatively harmless in others; and some persons who are the subjects of lithæmia get on best with a vegetable diet and milk.

But of all ingesta the various alcoholic drinks are most apt to derange the liver. They do so in two ways. *a.* They may cause persistent congestion of the liver. Even small quantities of alcohol in healthy persons produce a temporary hepatic congestion; but if alcohol be taken in excess, or too frequently, the congestion of the liver becomes permanent, and the functions of the organ are deranged. Like results may ensue from comparatively small quantities in certain persons, who may be said to have a constitutional intolerance of alcohol. Of course, if the congestion be long maintained, structural disease may follow. *b.* But wines and other alcoholic drinks often cause derangement of the liver, which a corresponding quantity of pure alcohol would not produce, and which, in fact, cannot be accounted for by any one ingredient of the offending liquid—neither by the free acid, the ether, the salts, gum, sugar, or extractive matter. This general rule, however, I believe holds good, that the injurious effect of alcoholic beverages upon the liver increases in a direct ratio without the amount of sugar plus alcohol which they contain. It would seem, indeed, that a mixture of alcohol and sugar produces injurious results, which would not be caused by the admixture of a much larger quantity of sugar, or of alcohol alone, with the food. In accordance with this view, the alcoholic drinks which are found from experience to be most apt to disagree with the liver are malt liquors of all sorts, but especially porter and the stronger forms of mild ale, port wine, madeira,

* See a fatal case recorded by me in Pathological Transactions for 1868, vol. xx., p. 187.

† See Clinical Report on Xanthelasma palpebrarum, by Jonathan Hutchinson, F.R.C.S., Medico-Chirurgical Transactions, 1871, vol. liv., p. 171.

‡ Guy's Hospital Reports, second series, vol. vii., p. 269; and Bristowe, in Pathological Transactions, vol. xvii., p. 414.

§ Scudamore, op. cit., p. 103.

‖ Lecture on Pathology and Therapeutics, 1867, p. 84.

* Op. cit., p. 142.

tokay, malaga, sweet champagne, dark sherries, liqueurs, and brandy; whilst those which are least likely to derange the functions of the organs are claret, hock, moselle, dry sherry, and gin or whisky largely diluted.

Derangement of the liver from excessive eating or from other errors in diet usually first shows itself in middle life—from thirty-five to forty-five. Young people, who take much exercise, and whose bodies are still undergoing development, require more food, and can often with impunity eat more than they require. But by the age of forty the body is fully developed, and most persons take less exercise than before, while at the same time they often indulge more freely at table. At any age, errors in diet will be all the more likely to tell upon the liver if there be any constitutional weakness in the functional power of the organ.

REDUCTION OF HERNIA.

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CONTRARY to the teachings of the text-books, I am in the habit of reducing strangulated hernia, especially of the inguinal variety, by means of taxis, almost to the entire exclusion of herniotomy. I have thus relieved many an enterocele without encountering a fatal result, save in one exceptional instance, where the incarcerated structures were already manifestly dying or dead. Within the last eight years I have had occasion to resort to the knife only some three or four times, although almost continuously in charge of institutions to which many cases of hernia were brought, and having done a large surgical practice, a considerable portion of which consisted in consultations with members of the profession. Over and over again have I been summoned by physicians to operate upon their patients, and, notwithstanding their assurances of the impossibility of reduction, have succeeded in restoring the intestine to its proper position, without injury to the part or detriment to the sufferer. This success has not been due to superior tact upon my part, or to the adoption of new methods of procedure, but to the fact that I have more faith in the efficacy of manipulation than most men, and practise it with greater patience and a bolder hand. Although it be true that "delays are dangerous" in this regard, there is always time enough for an intelligent and exhaustive trial of taxis. Between an unnecessary violence, which rends the gut or induces peritonitis, and such a liberal expenditure of force as may be required to overcome the constriction and return the protrusion, there is a wide and most important difference.

Such are the views which have been impressed upon me by multitudinous facts gathered from the field of a large experience; and, however heterodox they may be esteemed by others, I habitually act upon them without accident or regret. They were especially confirmed by the case of Kassim Pasha, Minister of War of Egypt, which recently came under my observation. This distinguished functionary had, in the early part of September last, an attack of strangulated inguinal hernia of a very serious character. For several days his physicians attempted in vain to relieve him by resorting to that *gentle* taxis which has been enjoined by the authorities, aided by warm baths and tobacco enemata. When I was placed in charge of his case he seemed almost *in articulo mortis*. He had lapsed into a condition of collapse which expressed itself in the phenomena of cold extremities, feeble respiration, thready pulse, shrunken countenance, clammy skin, &c., while fæcal matter was freely vomited, and the affected parts were much swollen and somewhat tender. Realising at once that the tobacco previously injected had contributed much to the existing depression, I stimulated him freely with brandy, introduced both by mouth and rectum, and finally succeeded in securing some reaction. I then attempted reduction, but failing in that, I gave him chloroform, and, as soon as insensibility was induced, proceeded again to manipulate the tumour. Finding resistance at the ring, I pushed the intestine carefully, but *forcibly*, in the proper direction, and in a few moments was rewarded by feeling the mass yield beneath my fingers, and hearing that peculiar gurgle which told that the work was done and the pasha rescued. Not an unfavourable symptom supervened, and the minister soon returned to his post of duty in good health and much delighted at his timely rescue. I must add that the chloroform was administered with some apprehension on my part, and in opposition to the wishes of a majority of the physicians present, for the patient was in a state of great depression at the time. Fortunately it did not act as a depressant, and his circulation and respiration were not injuriously affected by it.

The practical point, however, upon which I would dwell particularly is embodied in the fact that *forcible* taxis was accomplished without the slightest detriment in a case of inguinal hernia after four days had been wasted in fruitless attempts at reduction by more gentle means, and subsequent to the manifestation of the most urgent symptoms of strangulation.

It may be asked why an operation was not attempted when I first saw the case. This is a very natural question, and I will answer it by giving the reasons which influenced me against the knife. He was too profoundly depressed to warrant the waste of a single drop of blood. There were already so many causes conspiring to the development of peritonitis that the possible addition of another seemed inappropriate. Experience had convinced me that there is less danger to the parts from judicious manipulation than from an operation, however skilfully performed. If the gut were in a condition to be returned at all, it was far better to have it safely lodged within the abdominal cavity *without* the complication of a wound than with one, just as a simple fracture is a less serious affair than a compound fracture. Even after making an extravagant estimate of the chances of rupturing, bruising, or irritating the incarcerated tissues, fatal results are notoriously rarer after reduction by manipulation than after herniotomy; that is to say, taking respectively the sums total of *all* the cases in which taxis has been successfully accomplished and the knife appealed to, there have been fewer deaths following the former than the latter. For these reasons, as well as others which might be mentioned, manipulation was relied upon in this instance with a faith in its efficacy which the result most thoroughly confirmed and justified.

The generalisations deducible from this and kindred cases—the practical facts which are thus illustrated—are as follows:—1st. A very large majority of hernial tumours, especially of the inguinal variety, can be reduced by manipulation, and do not demand the operation of herniotomy. 2nd. Manipulation should be practised deliberately and thoroughly, giving time enough to the work to determine the question of its feasibility, and, while fearlessly resorting, if necessary, to more than *gentle* pressure, cautiously avoiding the opposite extreme of *roughness* and *violence*. 3rd. As a general rule, the knife should be the last resource of the surgeon.

As regards the *position* which is most favourable to the reduction of hernia, I have some very decided views. Wherever the cause of the strangulation may be located, it is a matter of prime importance to relax the muscles and fasciæ which surround the apertures wherein the loop of intestine has been constricted, and this can be most surely effected by approximating their points of origin and insertion. It follows, therefore, that the thigh should be flexed upon the abdomen, the pelvis approximated to the thorax, the shoulder of the affected side depressed in the direction of the crest of the ilium, and the linea aspera made to form as acute an angle with Poupart's ligament as the construction of the parts will allow. When reduction is attempted without chloroform, the patient should be made to *stand*, with his head and shoulders bent downwards and forwards, and the spinal column inclined towards that groin in which the tumour exists, at the same time the weight of the body should be thrown upon the foot of the unaffected side, and the other foot placed somewhat in advance of its fellow. Should the effort prove fruitless, the patient may then be placed either upon his back, in the usual position, with a pillow under the buttock of the side corresponding with the hernia, and the head and shoulders inclined as before; or in a semi-prone position upon his hands and knees, with head depressed and pelvis elevated, as in certain operations upon the rectum and uterus. Inversion of the body as it is ordinarily practised—which is only a modification of the supine

position—has really nothing to recommend it to the surgeon, since it necessarily puts upon the stretch muscles and fasciæ which should be relaxed, and at the same time removes from the point of constriction the whole weight of the intestines, thereby neutralising one of its antagonising elements. When chloroform is employed, the position of the patient is not a matter of so much importance to the surgeon, although the same general principles apply, and should be appealed to, under all circumstances.

Of the auxiliary measures by which taxis is facilitated, the most important is, of course, chloroform. Of the value of this agent it is unnecessary to speak, since the whole profession is a unit on the subject. The man, in fact, who would presume to rely upon other remedies to the exclusion of this most potent drug but proves himself a fossil of that period when brains had no creation. And yet I am not one of those who believe that chloroform should be instantly and indiscriminately administered in cases of hernia. While freely appreciating the inestimable blessings of anæsthetic agents generally, and with perhaps as large an experience in their employment as most men, I freely confess to a most sensitive apprehension of them. For this reason I am in the habit of testing the efficacy of opium and of cold, the subcutaneous injection of morphia, and the application of cold water, ice, or ether spray, before invoking the aid of more potent, but less innocent, agencies.

I have repeatedly reduced hernial tumours in this wise: Having unloaded the lower bowel by means of enemeta composed of water and soap, and injected morphia under the skin in the immediate neighbourhood of the constriction, I then, without permitting the patient to be informed of my purpose, have directed a stream of cold water upon the parts, and, at the moment of shock, pushed the gut into the abdominal cavity. The morphia alone has sometimes proved a sufficient auxiliary, and secured the success of the manipulation. I have but little faith in warm baths, and a holy horror of tobacco enemata, as I have known the latter to prove fatal in one instance, and to jeopardise the life of a minister in another. If there be not a prompt and proper response to the measures of relief thus appealed to, I then invoke the aid of chloroform, with some apprehension, it may be, for the safety of the patient, but in the confident assurance, as a general rule, of reducing the hernia. I have had no experience with the aspirator, but have no doubt of its value in some cases.

Cairo.

A CLINICAL NOTE
ON
THE TREATMENT OF SYPHILIS.

BY JOHN KENT SPENDER, M.D. LOND.,
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EVERY reader of THE LANCET must feel indebted to Mr. Hutchinson for his late contribution to the therapeutics of syphilis. The principles which he enforces are gradually winning the assent of the vast majority of the profession. It has been long felt that some veteran in the art of treating syphilis ought to tell us, in plain authoritative words, what mercury can do for syphilitic disease, and when and how it should be given. The subject has been made the battle-field of rival schools, and the distraction of party cries has caused ordinary practitioners to be puzzled as to where the truth of this matter is to be found. We ask for some clear unmistakable landmarks, and that these shall be established by those who are entitled to speak from unbiased observation and practical knowledge.

In two papers contributed to THE LANCET in 1869, I submitted some results which I had obtained from my experience in the treatment of syphilis. During a long tenure of honorary office (1855-72) at the Eastern Dispensary of Bath, a vast quantity of syphilitic disease fell under my care; a large proportion consisted of the intermediary squamous syphilides, and various tertiary ulcerations. I had time and opportunity for trying all sorts of therapeutic plans, and the general conclusions at which I arrived are closely identical with those so ably enunciated by Mr. Hutchinson. Nevertheless these conclusions differ in a few particulars which I propose now to specify.

1. In the second or exanthematous stage of syphilis, I have found it almost always useful to administer mercury and iodide of potassium simultaneously. The iodide should be prescribed in a dose of about ten grains three times a day, and may be usefully combined with aromatic spirits of ammonia, or with bicarbonate of potash and other reputed diuretics. The mercury may be given as a nightly dose of four or five grains of grey powder or blue pill; or, if it be thought expedient, about a grain and a half may be given as a pill with each dose of the iodide of potassium. No toxical action of the mercury need be developed beyond slight fetor of breath and sponginess of gums; and even these inconveniences may be prevented or mitigated by washing out the mouth several times a day, and by taking regularly a little lemon-juice. Further, it may be desirable to combine quinine with the blue pill, or to add a little opium to obviate purging.

2. The "intermediary squamous syphilides" are best treated with perchloride of mercury. Perhaps the most interesting and convincing parts of Mr. Hutchinson's papers are his observations on the curative power of this medicine over ulcerating forms of secondary rash, especially when they assume a pyogenic character. This is a fine bold practice, and I venture to claim for perchloride of mercury equal merits in controlling many other erratic syphilitic phenomena. Usually the drug should be given in compound tincture of chinchona bark.

3. The early tertiary symptoms of syphilis are often strikingly relieved by the soluble iodide of mercury, or rather by that double compound of iodine and mercury which is formed by adding iodide of potassium to a solution of perchloride of mercury. It is impossible to praise too highly the therapeutic qualities of this medicine. More than ten years ago I became indebted to the late Dr. H. W. Fuller for a knowledge of its value, and it is a pleasure to testify to the victories which I have won by its means over the syphilodermata and syphilitic ulceration. Nor is it less valuable in syphilitic inflammation of joints, the characteristic marks of which have been accurately pourtrayed by Lancereaux. In this disease the constant pain, increasing towards night, is a certain sign of coming disorganisation of structure; and there is no pathological lesion which demands a more energetic treatment.

It is unnecessary to add to what Mr. Hutchinson has said on the efficacy of large doses of iodide of potassium. There are some useful therapeutic hints in Dr. Broadbent's recent lectures on Syphilitic Diseases of the Nervous System.

If we can imagine a case of syphilis going on from stage to stage without the intervention of any medicinal agency, we should see certain phenomena mostly developed in regular order. Now it is maintained by a host of competent persons that this order can be changed or even arrested by two potent medicines, prescribed in specific quantities. What do we gain by admitting the one and denying the other? I may repeat what I said in 1869, that "those who are hostile to mercurial treatment raise up a kind of ugly spectre and call it mercury. But if they have not the ability to use a potent drug with discretion, they should abstain from the art of medicine altogether, for all potent drugs—substances, I mean, which cure disease and bring health to man—can do harm if badly used. I say deliberately that if, like ignorant children, we throw away a weapon because we do not know how to handle it, we criminally divest ourselves of one of the gifts of healing, and so far starve our therapeutic resources."

Bath.

REACTION OF SWEAT. — The contrast in the reaction of the urine in carnivorous and herbivorous animals is suggestive that some similar reaction may exist in the characters of the perspiration; and a series of researches has recently been undertaken by Dr. Moriggia (Moleschott's *Untersuchungen*, ix. 179) to determine this point. He has satisfied himself that the sweat of herbivorous animals is usually alkaline; that of carnivorous, usually acid. Both in animals and in man the urine becomes acid on prolonged fasting or on a purely animal diet, whilst it is alkaline on purely vegetable diet; the sweat, however, does not vary under these conditions, retaining its peculiarities in each case.

ON A FORM OF DISEASE OF THE MIDDLE EAR IN WHICH THE LOCAL APPLICATION OF ALCOHOL IS ESPECIALLY SERVICEABLE.

BY J. PATTERSON CASSELLS, M.D., M.R.C.S. LOND.,
FELLOW OF THE FACULTY OF PHYSICIANS AND SURGEONS, SURGEON TO AND LECTURER ON AURAL SURGERY AT THE GLASGOW DISPENSARY FOR DISEASES OF THE EAR.

To Dr. Löwenberg, of Paris, belongs the merit of having first recommended the local application of alcohol in certain diseases of the tympanic cavity. This he has done in an exhaustive and elaborate manner in a communication to *El Pabellon Médico* (Madrid, 1870), entitled "De la Otorrea," to which I beg to refer my professional *confrères*. My own experience, during the last two years, with this remedy in the catarrhal and inflammatory affections of the tympanum, enables me to confirm all that he has advanced in that communication. But as I have found it of especial value in the more advanced stages of simple catarrh complicated with a lesion of the membrana tympani, and as I believe that in such cases it is almost specific, I propose to describe the appearance of the tissues in this morbid condition somewhat more fully than my friend Dr. Löwenberg has done in the paper above referred to. This is all the more necessary as I fear that, when the use of this therapeutic agent becomes more general in aural medicine, it may fall into disrepute by its indiscriminate application in cases in which its use is either contra-indicated or at least not likely to yield satisfactory results.

The affections of the tympanum, out of which all other diseases of this cavity seem to develop themselves, are simple catarrh, muco-tympanitis, and tympanitis; but as I have already indicated that the use of alcohol appears to be more efficacious in an advanced stage of the first-named disease, the following remarks apply exclusively to it.

This affection of the tympanum (simple catarrh), consists in a hyper-secretion by its lining membrane, unduly stimulated to increased action through causes that determine an over-abundant flow of blood to it. Under favourable circumstances this condition ends in resolution, by a return of the hyperæmic tissue to its normal state; but not unfrequently it passes into one in which the morbid processes are in abeyance, and the secretion contained in the tympanum becomes inspissated. More commonly, however, and especially in early life, the morbid processes set up in this cavity become chronic, but still continue active. The secretion increases in quantity, till, exceeding the capacity of the tympanum to contain it, and unable to effect its escape by the Eustachian tube already concentrically closed, it breaks through the membrana tympani, and appears as a flocculent discharge from the external meatus, constituting catarrhal otorrhœa. If at this stage the parts are carefully freed from this secretion, we observe a greater or less loss of structure of the membrana tympani, and the lining membrane of the tympanum highly congested, the colour of it depending upon the degree of the hyperæmia and the duration of the previous stages of the disease; and that it is also hypertrophied and villous. To this condition of the membrane I venture to apply the name polypous hypertrophy, as sufficiently designatory of its appearance. What its microscopic character may be I am at present not prepared to say, for, except in an indirect manner, I have not had an opportunity of ascertaining this. When polypi, however, develop themselves out of this morbid state, and have their attachment to the lining membrane of this cavity, they appear under the microscope to be made up of a proliferation of the loops or papillæ of its vascular layer covered with its own epithelium. The inference, therefore, that in this condition of the lining membrane of the tympanum there is a true hypertrophy of its normal structure seems warranted.

This condition of the ear, briefly and therefore imperfectly described above, is that in which I have found the local application of alcohol almost specific.

Those who are familiar with this specialty will not fail to recognise a similarity between the disease I have described and that in which Professor Schwartze of Halle recommends his excellent neutralisation treatment (see *Archiv für Ohrenheilkunde*). But while the method devised by the distinguished Professor is not inadmissible in recent cases, it is better adapted to those very chronic forms of this disease met with in adult and advanced life. The alcohol, on the other hand, for reasons that need not be entered on, will recommend itself to the practitioner in the treatment of those cases that occur in infancy and childhood.

Newton-terrace, Glasgow.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF TUBERCULAR MENINGITIS.

THE following case, for the notes of which we are indebted to Dr. Greenfield, medical registrar, is a continuation from p. 367 of the series of cases commenced at p. 266.

CASE 4.—Rachel S——, aged eighteen, was admitted on June 30th, 1873, under the care of Dr. Peacock. She stated that she had had fair health up to the time of her present illness, with the exception of an attack of similar character to the present, with headache, vomiting, &c., in Aug. 1872. Parents both dead: mother died of phthisis, but the cause of father's death is unknown. Patient has never had hæmoptysis, and the catamenia have been regular. Her present illness commenced on June 18th, with pain in the head and general malaise, from which she has not been free since. On the 25th, a week after the first symptoms, she had slight retching; and during the two following days she had frequent vomiting, which, however, ceased entirely on the 28th. The bowels have not been opened since the 26th. She had only kept her bed a day or two before admission.

The following are the notes taken of her condition on July 1st:—She is of fair complexion, and well nourished; looks very drowsy, and is of heavy aspect and manner. She complains of severe headache, chiefly frontal; of pain along the spine, and general wandering pains in the limbs. Pupils equal and natural; no strabismus. Abdomen somewhat retracted; general abdominal hyperæsthesia, and also some tenderness, most marked in the right iliac and splenic regions. Ready tâche cérébrale over abdomen. Tongue thickly coated, but moist; breath offensive. Pulse 66, slightly irregular, and unequal. Temperature 101·4° last night; 101·2° this morning. She was ordered, last night, half an ounce of castor oil, to be taken at once; and twenty grains of chloral hydrate.

July 2nd.—Still very drowsy; the eyelids droop, and there is slight photophobia. Intelligence good, but memory rather obscured. She complains to-day, for the first time, of severe cramp-like pain in the right arm, and a feeling of numbness in the finger-tips of that hand; but there is no loss of sensibility or motor power. The pain in the back is also much more severe, especially in the cervical and lower dorsal regions, and it is much increased by sitting up. Abdomen less tender; marked tâche cérébrale produced in about fifteen seconds. Temperature 101° to 102°. Pulse 60 to 70 per minute, irregular, unequal, and feeble. Has a slight cough; nothing abnormal discovered in the chest. She was ordered six grains of iodide of potassium three times a day.

5th.—Since last note has kept much the same; slept well. Temperature from 101° to 101·4° Since last evening, however, she has been very delirious, talking and getting out of bed throughout the night. This morning she is slightly wandering, but can be roused; says she hardly knows how to speak, and there is evidently difficulty both in remembering and articulating words; less pain in head, but

still severe between shoulders, and pressure over the upper cervical and middle dorsal vertebræ causes great suffering; no retraction of head; face flushed; pupils equal; diplopia; internal strabismus of right eye; congestion of both optic papillæ, but no neuritis. Temperature 102° to 102·4°; pulse 90, regular; no vomiting; no cough.

6th.—Delirious throughout yesterday; less so to-day, but is drowsy and unintelligent; marked internal strabismus of right eye, and slight of left; pupils dilated, equal; sight much affected; she cannot see figures half an inch high with right eye, and with left cannot read them; hearing also defective, especially with right ear; tongue deviates slightly to the left.

7th.—Very delirious in the night. This morning there is very marked right facial paralysis affecting the orbicularis palpebrarum, without diminution of sensation; the tongue, however, deviates strongly to the left; velum palati apparently unaffected; chest hyper-resonant in front; loud sonorous râles heard all over it.

8th.—Quite delirious; roused with great difficulty to take any notice; passes motions under her to-day; facial paralysis continues, and she does not move her right arm or leg to-day. Temperature 103°; pulse 120, small, regular; breathing irregular, sighing.—9 P.M.: Quite delirious all day; can be got to pay attention and put out tongue for a few seconds this evening with some difficulty; muscicipia and carphology with left hand only all day; has had some difficulty in swallowing. Right side of face still paralysed, and the right pupil is now dilated widely and does not act to light; tongue still put out strongly towards left side, and the left half of the soft palate is now completely flaccid and paralysed. Respiration irregular, heaving, almost entirely diaphragmatic.

10th.—Very little alteration, except that there is a more comatose condition; temperature 103° to 103·2°. She lies quite unconscious, moving the left hand and arm about restlessly; chest much distended, hyper-resonant, and scarcely moving in respiration; exaggerated breathing, without râle, throughout front of chest.

11th.—Died at 3 A.M.

Autopsy, thirty-three hours after death. — Body well-nourished; no decomposition. The spinal canal was opened first; there was much dark fluid blood in the spinal vessels. Dura mater tense, distended with fluid throughout, and its surface too vascular. The distension was due to a large excess of subarachnoid fluid, none of it apparently in the arachnoid cavity. The cord itself was firm, and apparently healthy. The brain was greatly distended, and much softened at the base, where there was a good deal of scattered tubercle extending along the Sylvian fissures, chiefly the left. The appearances otherwise were those usually found in this disease. Eyes not examined. The upper lobes of both lungs contained groups of grey granulations, a few of which were caseous, and in the centre of the upper lobe of the right was a cavity the size of a hazel-nut. The lower half of each lung was much congested, and partially collapsed. Bronchial glands not enlarged nor caseous. Kidneys much congested, with minute injection of the cortical substance. No tubercle was seen in the peritoneum or any of the abdominal organs. The other organs were normal.

It would perhaps be difficult to select a more typical case than the foregoing as an illustration of the form of the disease occurring in the young adult. The mode of onset, course of symptoms, and duration, may all be regarded as very characteristic. Attention may, however, be called to the severe pain along the spine, and great tenderness at one or two points, as of not very usual, although perhaps not of rare, occurrence. This may most probably be due to the condition discovered on post-mortem examination — viz., excess of subarachnoid fluid, and consequent pressure on the cord or on the nerves. This must, in all probability, occur in every case to some extent. It was observed that the fluid appeared to form much larger accumulations in the cervical and lumbar regions, where the subarachnoid space is normally larger, and the fluid was not readily removed along the cord from these situations. Whether its presence there depended entirely on gravitation, or partly also on extension of the disease to the membranes of the cord, was not decidedly determined. The absence of caseous glands, or other obvious starting-point of the disease, will also be noticed.

WESTMINSTER HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. COWELL.)

Encephaloid Disease of Head of Tibia; Spontaneous Fracture; Amputation; Death on the eighth day.—Amputation of the thigh at the lower third was recently performed for an interesting case of cancer of the head of the right tibia. There is nothing special to mention with regard to the operation except as to the failure of torsion. The femoral artery broke down under a very moderate twist, and was subsequently secured with a ligature with great difficulty.

The history of the case, taken on admission, was as follows. The man was fifty-two years of age, a shoemaker by trade, and was always accustomed to rest his work, and hammer, upon his right knee, and to this fact he attributed the swelling, which he first noticed eight weeks previously. The disease soon rendered him unable to work, and he became an inmate of the Westminster Workhouse, whence he was sent to this hospital.

When the patient first came under Mr. Cowell's observation there was considerable enlargement in the position of the head of the tibia, and a fracture had occurred spontaneously, and unknown to the patient, immediately below it. No crepitation existed, and it seemed probable that bone had almost disappeared from the head of the tibia. Pain had been slight throughout the progress of the case. The swelling was elastic, and presented in a remarkable degree the sign of fluctuation. It was punctured with a small trocar, a few drops of blood being the only result. The aspect of the patient was cachectic, but not in a marked degree, and his general health was good. Pain considerably increased a few days before the operation, and one or two of the femoral glands became slightly enlarged. The knee-joint was apparently unaffected.

Mr. Cowell made a longitudinal section through the limb, dividing the growth, together with the femur, patella, and tibia. The head of the tibia had disappeared, with the exception of one thin plate of bone about an inch in diameter, which was found towards the outer side. The appearance of the section of the tumour was unmistakably encephaloid. The growth was rounded, about six inches in diameter, and of firm consistence, but at one spot near the centre had assumed a yellow colour and become softer. The shaft of the tibia terminated abruptly at the tumour. The shaft of the femur had increased considerably in size, and had evidently been the seat of chronic ostitis.

The subsequent microscopic examination of a section of the growth shows its cancerous nature, and with the characteristics of a minimum of stroma and a maximum of oval cells. The patient, unfortunately, died on the eighth day after the operation.

Amputation of Leg for Painful Stump.—On the same day as the above, reamputation was done for a painful stump. Mr. Cowell had amputated the leg at the junction of the middle and lower third two years before for extensive disease of the ankle-joint. The patient was then fifty-eight years of age, and the tibia and fibula were too much involved to admit of the performance of Syme's operation. The stump had healed well at first, but although there is no deficiency of covering, the stump being still of good shape, the skin at its end is of a bluish colour, and always cold from deficient circulation. There is constant pain, which nothing will relieve, and there are two indolent ulcers, each about the size of a sixpenny piece.

Amputation was performed about six inches higher up, making a large anterior skin-flap. An attempt had been made to adopt the bloodless method. The limb was bandaged and the india-rubber cord applied, but after the removal of the bandage the limb again filled with blood on account of the command of the femoral artery being incomplete. The band was therefore removed, and an ordinary tourniquet applied.

An examination of the removed stump showed there was no diseased bone, and no neuroma in connexion with either tibial nerve. The ends of the bones were well rounded, and had become slightly united. Mr. Cowell stated that if the patient had been younger he would have preferred to have amputated at the knee-joint. The patient made a good recovery, and has had no recurrence of pain.

SALISBURY INFIRMARY.

TRAUMATIC ANEURISM OF THE FEMORAL ARTERY; DIGITAL COMPRESSION FOR NINETY MINUTES; CURE.

(Under the care of Mr. F. R. P. DARKE.)

THE following case is of interest, as showing the value of compression in the treatment of femoral aneurism. Ligature of the common femoral artery for femoral aneurism has not hitherto been attended by favourable results—in fact, some surgeons think that the operation should be banished from surgical practice. The satisfactory results in the present instance were no doubt greatly favoured by the nature of the aneurism and by the roughened condition of the interior of the vessels from degenerative changes, so that extensive surfaces existed favourable to the coagulation of fibrin.

C. P——, aged seventy-eight, was admitted on Aug. 2nd, 1873. He states that about a month prior to his admission he received a kick from a horse on the right thigh, that the part turned black, but was not very painful, and that about a week intervened between the receipt of the blow and the appearance of the swelling.

On admission, the man was old and feeble, and had diseased arteries, the brachial artery, which was plainly visible at the bend of the elbow, being also tortuous and irregular. There was no abnormal cardiac dulness or distinct murmur over the region of the heart, but there was slight arcus senilis. In the epigastric region was a pulsating tumour, rather tender on pressure. He complains of pain in the right thigh extending down the calf of the leg, and on examining this part a pulsating tumour, as large as a moderate-sized orange, was seen at about the junction of the upper and middle thirds of the limb, six inches below Poupart's ligament. It was most prominent anteriorly, where it formed a globular swelling, and on placing the hand on this swelling, a most distinct thrill was experienced. On stethoscopic examination, a blowing murmur was distinctly heard, and pressure on the artery above controlled all pulsation. The skin over the tumour was not discoloured, but very tense, whilst the limb at the seat of the swelling measured 19½ inches in circumference, being an excess of 3 inches over that of the opposite thigh, where the circumferential dimension was only 16½ inches.

From the age of the patient and the diseased condition of his arterial system, the case was not a promising one, and it was determined to try digital compression. This was commenced under the direction of Mr. Biggs, the house-surgeon, assisted by the Superintendent of Nurses, who kept up the pressure alternately, on the 3rd of August last, at 3 o'clock P.M, the point selected being where the vessel issues from the pelvis. After the space of an hour the tumour became harder and less pulsating, and after the further lapse of half an hour (i. e., ninety minutes in all) pulsation entirely ceased. The compression was then discontinued, and the limb covered with cotton-wool and bandaged.

Aug. 4th.—Passed a comfortable night, complaining merely of slight pain down the thigh, which does not appear to be due to the tightness of the bandage. There is no return of pulsation in the tumour, which seems lessened in size, but hot. The circumference of the limb is 19½ in., but the toes of this foot feel colder than those of the other.

From this date the patient progressed favourably; the tumour became harder, and the limb decreased in dimensions. On his discharge from the infirmary, Sept. 13th, the limb gave a circumferential measurement of 16½ in. The tumour was again examined on Sept. 16th, but no return of pulsation was to be found.

The point of interest in this case is the very short time (ninety minutes) that it was necessary to keep up the compression of the vessel. It is probably the shortest time on record in a case of femoral aneurism.

ACIDITY OF THE GASTRIC JUICE. — At a meeting of the Biological Society of Paris, MM. Claude Bernard and Lepine both asserted that the results of their recent experiments led them to reaffirm that, contrary to the statements of some German authors, the glands of the stomach do not secrete an acid juice, and that it is only on the surface of the mucous membrane that gastric juice becomes acid.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 21ST, 1874.

SIR WM. JENNER, PRESIDENT, IN THE CHAIR.

ADJOURNED DISCUSSION ON CANCER.

DR. GREENHOW.—I should scarcely have presumed to take part in this debate if it had been a debate upon the histology of cancer, or even upon the pure pathology of cancer; but, in fact, it has been a debate upon the clinical history of cancer, and, therefore, as no one else rises, I will venture with some diffidence to make a few remarks on the subject which has been occupying the attention of the Society for the last three meetings. In saying that this has not been a debate upon the histology of cancer, I am not unmindful of the fact that several very pertinent references have been made to that subject, that Mr. De Morgan has laid stress upon the great mobility of cancer-cells, and that Mr. Arnott has stated his opinion that the malignancy of cancer is in proportion to this mobility of cancer-cells. I gather that Mr. De Morgan's view is that cancer is a local disease spreading mainly by this transference of cancer-cells from the primary seat of cancer to more distant localities. Whether this be so or not I leave to be discussed between himself and Mr. Simon. I regret that Dr. Creighton, who was referred to by Mr. Simon, did not speak here; but Mr. Simon distinctly enunciated this view, that the infectivity of cancer was communicated, not by the transference of a cell from the original seat of cancer, but by an infection which he compared to impregnation of the surrounding tissues which took on a cancerous growth—a very different thing from the transference of a germ which grows in the locality in which it finds its place and becomes a fresh nucleus for cancer. Dr. Moxon at the last meeting tried to bring back the Society to what he considered the essential objects of the debate. He stated that localism and generalism are incompatible, and he tried to bring us back to consider cancer as rather an altogether local or an altogether general disease. And, certainly, *primâ facie*, there is great reason to suppose that cancer is a local disease. We find it begin in a particular locality, we find it spread from that locality by the lymphatics or by the vessels to more distant parts, and it does seem, therefore, to be a local disease. But this, I would maintain, is only one side of the shield; there is another side, and it is represented by Sir James Paget, who takes the view that cancer is due to a general condition. But when we analyse this statement of Mr. De Morgan in the very admirable and carefully considered paper with which he inaugurated this discussion, I find that he uses terms implying that there is something more than a local disease in cancer, or more than a local tissue change. He cites the hereditariness of cancer in proof of this fact; he goes as far, I think, Sir, as you would, perhaps, certainly as far as I would, in saying that the cancerous tendency may pass a generation and reappear in the third; that a cancerous parent may have a progeny that does not exhibit signs of cancer, and the cancer may be developed in the next generation, missing a generation by reason of the cancer not being strong enough to develop itself in that generation. This view is a very material modification of what I have always thought to be Mr. De Morgan's view—viz., that cancer is a purely local disease, beginning in the locality and spreading from that locality to the general constitution. He admits clearly that there is a constitutional condition as well. I cannot say that I see any great difference between this opinion of Mr. De Morgan's and Sir J. Paget's opinion, for Sir J. Paget says that he looks for both a local and a constitutional origin of cancer. Between the views of these two gentlemen, who may be said to represent the great schools of thought on the subject of cancer, and who have had perhaps the largest experience of the disease of any surgeons in London, I cannot help feeling there is not the wide divergence we at first supposed; that there is really a harmony between the two schools; that, as Dr. Moxon said, there is a "sweet agree-

ment" between them which renders the difference one rather of words than of things. For my own part I think it is impossible to study cancer—to study it even as I do as a physician—without seeing that there is something more than a local condition; that, although it may begin in the locality, there is a something in the system beforehand—let us call it a predisposition or hereditary tendency. I know these are words which it is difficult to define, and which convey very different meanings, according to the men who use them and according to the circumstances under which they are used. For instance, I do not think that the hereditary tendency to a cancerous disposition is identically the same as that hereditariness which leads to the development of a deformity. We see sometimes this sort of deformity occurring. We see children of cousins (I refer to cases that I have myself witnessed) having club-feet or supernumerary fingers. It is not that form of hereditariness or predisposition which we see in cancer. Neither is it that form of predisposition which leads to the development of a non-malignant local disease, as in the case of hydrocele. Sir Henry Holland describes a case of hydrocele occurring hereditarily in a family, missing one member only, and that member a female. It has come under my own observation that brothers sometimes have hydrocele. I remember many years ago seeing a gentleman fifty-five or fifty-six years of age who had hydrocele. Two brothers had it before him at about the same age. Here was undoubtedly an hereditary tendency to hydrocele, and that seemed to be a tendency to a local disease. I do not think that cancer has exactly that sort of hereditary tendency. Neither has it a tendency like that of gout. I think it much more nearly resembles tubercle, if I might name one kind of hereditary disease which comes nearest to cancer. Phthisis of course is hereditary, as cancer is hereditary. Notwithstanding all that has been done of late years to throw light upon phthisis as arising from various causes, from catarrh, from pneumonia, and what not, we shall all agree that it is occasionally and frequently an hereditary disease. And, like cancer, phthisis sometimes descends to one side of a family only. I remember a family, some of whom were patients of mine, in which there were five daughters who died of phthisis between twenty and thirty years of age; there were only two sons (schoolfellows of mine), who are living now, and are both older than myself. I remember another family that suffered from phthisis, and four sons died of it, while three daughters are, or were a few years ago, living. This occurs in cancer also. We find that cancer sometimes descends, especially in the female sex, perhaps because the female organs, the uterus and the breast, are especially liable to it; still in this respect it somewhat resembles phthisis. When I look at these facts I cannot help thinking that cancer is a general disease. How else can we explain such a fact as this, which occurred to me in my own practice? Three sisters and two brothers in a family died of cancer. Four out of these five cases were in different organs. One had cancer of the œsophagus; another had cancer of the mamma; another had cancer of the uterus; and another cancer of the rectum. I do not remember the site of the fifth. Here is a case in which cancer was obviously an hereditary disease, showing very strong grounds for believing that the disease was in some way or other constitutional. Of course there are many such cases on record. Sir James Paget has published numerous cases of the sort; I merely quote this as a striking one which came under my observation. Nor, again, can we hesitate to believe that cancer is a constitutional disease in some way or other when this occurs. I saw a patient a year or two ago who had cancer of the mamma. Her mother had died of cancer of the rectum; she had been seen by Sir James Paget. Here, then, is a case of a mother and daughter both of whom died of cancer, the seat being different in the two persons. I say that cancer resembles tubercle in many respects. It would lead me very far to go into that subject fully, and I am aware that there are several gentlemen who wish to speak this evening, and that Mr. De Morgan has to reply to the various speakers. I would say, however, that cancer resembles tubercle in many respects much more closely than any other of the diseases that have been referred to. I can quite understand why cancer occurring in a locality may remain dormant for a long time after its first development, as tubercle sometimes does. We sometimes have tubercle occurring, and the patient recovers after a time the tubercle has gone, it aborts, it becomes latent, and by and by, at a distant period perhaps, sooner or later the tubercle lights up afresh, and the patient has tubercular disease of the lungs. Cancer thus resembles tubercle in its local history somewhat, and in its constitutional history generally. My own view is that there is a strong hereditary predisposition to cancer in a great many cases. Sir James Paget, whose experience is very large, told us at the last meeting but one, that in his experience about one case in three was hereditary. I do not see how, after that, we can hesitate to admit, as Mr. De Morgan admits, that there is a constitutional condition as well as a local origin of cancer. Why cancer, thus being an hereditary disease, should manifest itself locally is not obvious. Why a person who has inherited from his father or mother, or some other ancestor, a tendency to cancer should get cancer in the breast or in the tongue or in the rectum is not obvious. We know that sometimes this local development is due to an accident. I remember to have seen a gentleman who fell from a pony and received a blow upon the abdomen, which produced a swelling. I did not see him for some time, but in six or seven weeks after the blow the tumour had been opened by a surgeon, and it was found to be a case of colloid cancer, which had spread and invaded the organs of the abdomen, and the patient died. There was no antecedent history of cancer, and, undoubtedly, the appearance of the cancer was produced by the blow. Again, why is it that cancer sometimes will attack an organ in an imperfect state of development? Why is it that a mamma, for instance, that has never been available for its proper use, shall, by and by, in middle life, become a seat of cancer? I am acquainted with a case in which this took place. There were two generations in the same family. In one of them the mother had a mamma which had never developed during lactation; she died at an advanced age with a tumour in her right mamma about the size of a pigeon's egg, but she never had cancer. The daughter had a tumour of the same sort in the left mamma. The first history in her case, as in the case of the mother, was that the breast did not develop during lactation; whilst the milk came in the right breast, none, or but a small quantity, came in the left, and by and by this imperfectly developed mamma became the seat of cancer. This case illustrates what Sir James Paget remarked, that cancer is apt to attack the mammæ and uterus because those organs become prematurely old. He thinks that cancer is a disease of old people. I say why cancer, being a constitutional disease, should so often become a local disease is not obvious. That is a question yet to be worked out. I think that this great debate, which has been of such advantage to the Society and to science, results practically in this—that there is no such great divergence between the local and the general school as some of us have supposed. And very much the same thing may be said with regard to treatment, if I may venture to use that word in this Society. Mr. De Morgan tells us in his admirable address that cancer almost always returns after removal; on the other hand, Sir James Paget says that now and then, in a small number of cases, cures take place after removal. The practical inference I would draw from what has been said by these gentlemen, and from the general course of the debate, is that cancer, if it has to be dealt with locally at all, ought to be removed at as early a period as possible. That, I think, seems to be practically the upshot of the debate. I have confined myself in the remarks I have ventured to make, which I feel to be very crude, to the subject of surgical cancer; but I think if we had taken into consideration the subject of medical cancer we should have found still stronger grounds for regarding cancer as a constitutional disease. I forbear to enter into that subject since the debate has been hitherto confined so strictly to external cancer.

Dr. CREIGHTON.—Reference has been made by Dr. Greenhow to certain investigations of mine, which also formed an illustration for Mr. Simon's argument on the first night of the debate. More than a year ago I made investigations on the pathology and causation of cancerous tumours, and after feeling my way for a little time it appeared that secondary tumours in the liver, whether they might be called cancerous or sarcomatous, or whether they belonged to any other variety, were likely to throw light upon the pathology of cancer more than any investigations into tumours occurring in primary situations. It so happened that at the same time material came into my way favourable to this investi-

gation. The tumours I first examined occurring in the liver were similar in external character, but the primary tumours were of considerable variety. One very remarkable case occurred in the ascending colon which had the structure of the tubercular gland. Another was a case of spindle-cell sarcoma, under the care of Mr. Croft, of St. Thomas's Hospital; it existed in various parts of the body in the subcutaneous tissue; one was in the rectum; another was a myxomatous tumour of the femur. They presented a considerable variety, and embraced a wide range of epithelial and connective tissue structures. In these cases I found that the point of departure in the liver was the liver-cell itself, and that not in the way of proliferation and multiplication of nuclei, but in the way of endogenous cell-formation—that is vacuolation of the protoplasm of the liver-cell and the differentiation, so to speak, of the products that survived the vacuolation. This endogenous cell-formation in the nine or ten cases I examined was pretty well exemplified in all these varieties, so that if one were to attempt to write the natural history of endogenous cell-formation it might be done from those cases. The conclusion I arrived at was that from liver-cells there might develop not only epithelial cells, but also connective-tissue cells, including spindle cells, as well as myxomatous cells, cylindrical epithelium, and other kinds of epithelium. In all these cases the secondary tumour had a remarkable resemblance to the primary tumour. For example, with regard to the tubercular gland structure, which occurred in the ascending colon, the structure of the primary tumour was reproduced exactly in every respect in the liver, although not at all points equally developed. Again, with regard to spindle-cell sarcoma, the spindle cells were exactly the same as in the primary tumour, and even the melanosis in the primary tumour was to a certain extent continued in the secondary. In a case of giant-cell sarcoma, a sort of epulis growing from the upper jaw, there was in the primary tumour a remarkable arrangement of the stroma, which was reproduced in the secondary. Indeed, the similarity between the primary and the secondary tumours was irresistible. When these facts are looked at it appears that the relation between primary and secondary tumours is comparable to no other relation in nature than that of parent and offspring, and when the exact histological process is looked at more closely—namely, vacuolation—there is an additional argument in favour of supposing that the influence from the primary tumour which results in the formation of the secondary may be compared to what Mr. Simon called the spermatic influence. It may be a little fanciful, but certainly there is some ground for supposing that the changes that take place in the ovum after impregnation might very well be compared to some changes in the liver-cell when it begins to assume the character of tumour cells. So that both from histology and from general considerations one is led to suppose that secondary tumour is produced by an influence emanating from the primary tumour, and that that influence may be compared to a spermatic influence. So far that is a constitutional element in cancer, because these secondary tumours occurred not only in the liver but in the lung, in the lymphatic glands, and in various other internal organs. But while that is the case as regards tumours in the liver, I doubt very much if the same spermatic influence or any influence of a similar kind is to be postulated in accounting for primary tumours. I think it is incumbent on us to look for an explanation in the particular regions in which the primary tumours occur—for example, in the mammary gland. The case mentioned by Dr. Greenhow is, I think, somewhat illustrative of that point—the case, namely, where the particular mamma which was not employed in lactation became the seat of tumour. From an examination of a considerable number of mammary tumours, I have been led to form a pretty strong opinion, which, however, I do not like to express definitely as yet, that the process of involution and evolution of the mammary gland will be found to account, not so much for the existence of tumour, but for the particular combination of connective tissue and epithelial tissue which so puzzles histologists in investigating those parts. Again, the os uteri and the stomach, which, I think, according to the investigations of Dr. D'Espine, of Geneva, have been proved to be the most frequent seats of primary cancer, are, at the same time, distinguished for their remarkable liability to catarrh. It no doubt seems a great leap from catarrh to cancer. Whether there is anything in that idea or not I cannot say; still I believe that it is to such ordinary conditions as catarrh or the involution of the mammary gland that we have to look for explanations of tumour occurring in those regions. Whatever is constitutional is developed from the primary tumour after it has attained a certain maturity, and the constitutional element is represented in the recurrence of secondary tumours. It is superfluous, as far as I can see, to refer the whole cause of cancer to a mysterious constitutional element so long as there are so many vicissitudes of the body, vicissitudes of cellular life, which may be the point of departure of cellular growths. As regards the mamma, those vicissitudes are remarkable. The process of involution and evolution is very extraordinary in itself. Unfortunately there is very little information to be had about the exact nature of the changes. I am confident, if we knew more of the exact causes of the cellular changes, we should find many analogies to the different forms of cancer occurring in that gland; sometimes it is almost purely cellular or medullary, at other times pure fibrillæ or connective tissue. In the stomach and os uteri the difficulties are still greater; but when we consider, apart from tumours of the connective tissue series, that most cancers are developed in organs of a secreting character, it is incumbent on us to take into account the fact of secretion. The secretion itself is performed by the agency of cells, and probably by the destruction of cells; and in many cases there may be, besides the vesicular product, a cellular product. That is the line in which my investigations are leading me at present, but my opinions are too immature to be expressed here; I content myself with pointing out the circumstance that there is a considerable body of evidence for the constitutional element of cancer, after it has attained its primary development, and that there is in the body, after a certain time, an influence which may be justly called the spermatic influence, and which is the cause of tumours in distant parts.

MR. RIVINGTON.—The question of the relation of cancer to the organism may advantageously be narrowed to these two issues:—First, is cancer of local or constitutional origin? secondly, if it be local or if it be constitutional, or a mixture of the two, what are the elements out of which it arises? Questions concerning the nature of malignancy, causes of degrees of malignancy, and geographical distribution, phenomena of cancer in the quadrumana and lower mammalia, and other points which have been touched upon by preceding speakers in a highly interesting and instructive manner, are all secondary and subordinate to these main issues. The whole burden and gist of the present discussion rests on the primary manifestation of the cancerous growth. For, given a mass of the structure of a cancer containing elements, rapidly growing cells and nuclei, with locomotive properties, and given the mode of formation of that mass, and all the secondary phenomena—the local multiplications and invasions of tissue, the passage into the blood and into the lymph, the appearance in other and distant parts of the body, the recurrences after removal, the infection of the system, the cancerous cachexia, and ultimate death—would appear to admit of ready and intelligible explanation. But that which is the great mystery is, how does such a mass come into existence? Is it a local or a constitutional manifestation. Before endeavouring to reply to this question, as I must do very briefly, let me again draw the attention of the Society to the extreme importance, not only of defining terms, but of all speakers adhering to one common acceptation of those terms. It is also proverbial that confusion of thought and unprofitable argument have arisen in controversies from time immemorial in consequence of disputants not employing in the same sense the terms expressive of the subjects of controversy. In the debate on tubercle, in the discussion on pyæmia in "another place," much of the advantage of the speeches was lost because the words were used sometimes in a limited and sometimes in a comprehensive sense; and, as Dr. Payne has already pointed out, because the preceding speakers have not employed the terms local and constitutional with the same meaning, I deem it advisable to state the interpretation of those terms to which I will adhere as deducible from the addresses of Mr. De Morgan and Sir James Paget. By local origin of cancer I understand origin in a part or organ out of the elements of the tissues of the part or some neighbouring part, with the blood of normal constitution, or certainly

free from any foreign morbid material. By constitutional origin of cancer, I understand origin in a part, not out of (for that might give rise to misapprehension), but in connexion with some pervading element, whether that element be of tissue or of blood. Dr. Moxon objected to the use of the term constitutional altogether, because of its ambiguity. Nothing, he said, was so constitutional as that which is local; there is nothing so constitutional as the great toe. No doubt there is some justice in these remarks, but if we define the sense in which we are going to use the term constitutional, and adhere to that sense, no ambiguity can arise. First, there is cancer of local origin. In reply, let me say that I am a localist, and I am not a localist. I am not a localist in the sense in which Dr. Moxon is a localist. Dr. Moxon's formula for the production of cancer was this: There is a healthy body; a cancerous tumour arises in one part, and from that parent tumour all the secondary cancers appearing in the body are produced. I am not a localist in this sense, because I believe that there are some secondary cancerous tumours which are only secondary in point of time, but not secondary in point of relation to the primary tumour. They would have arisen even if the primary tumour had not appeared. But I am a localist in this sense, and I presume that most if not all of us are localists in this sense—that cancer is a modification of the tissue elements of the part in which it occurs or of some neighbouring part. I say of some neighbouring part to cover such cases as that of an osteoid cancer arising, not in a bone, but in a neighbouring intermuscular space. There is nothing peculiar in the cancer structure. The cells—what are they? Either conceivable or actual modifications of the cells of the part—epithelial, connective-tissue corpuscles, or white blood-cells, and it may be, in some kinds of cancer, of all three of these together. In the stroma there is nothing peculiar. And so much is this the case that where we have an epithelioma in a mucous membrane covered by squamous epithelium, the type of the cells is squamous; where the epithelium is columnar, the type of the cancer-cells is columnar. Dr. Moxon told us that rectum cancer was rectum tissue, and he has made the interesting observation that the liver-cell develops into a cancer-cell—an observation just confirmed by the preceding speaker. Even Sir James Paget admits, in his lectures, that there is in cancer no new type of structure—no new laws of nutrition. All the heterology consists in the multiformity of elements—the disorderly crowding of elements—the abnormal growth of natural elements. The question then arises—how does this disorderly crowding and this abnormal growth of natural elements occur? I turn for a solution of this question first to the localists, and this is exactly where the localists seem to me to fail. I might illustrate this by one or two passages from Mr. De Morgan's address, but for the sake of brevity, at this period of the discussion, I will refer to only one. In illustrating the growth of cancer from malignant enchondroma, Mr. De Morgan says: "Once admit that the cartilage cell-holding tissue can throw off the laws which regulate natural growth, and I do not see where or why it becomes necessary to invoke any other aid." Of course not. If we admit that the cells have the power of throwing off natural laws, there is no need for further discussion. But cells cannot of themselves throw off natural laws. So long as they are placed in normal conditions, they will obey the normal laws of growth and development, and it is only when they are placed in abnormal conditions that they will develop abnormally. But the whole question under discussion is, what are the abnormal conditions which cause the cells to grow and develop abnormally? Cancer was called by Mr. Hutchinson a rebellion of cells, and no doubt it may be so; but what is it that causes the cells to rebel? He compared cancer to the Celts, whose disposition it was to throw off the shackles of orderly government and to aggrandise themselves; but even the poor Celts would continue peaceable citizens and exhibit the virtues of self-restraint, if it were not that they were constantly supplied with some unwholesome moral pabulum from some *fons et origo mali*. What, then, have the localists to offer us in explanation of the rebellion of cells? Nothing but local irritation. Our minds contain a saturated solution of cases of cancer arising from local irritations. We are all familiar with the epithelium, as of lips and tongues, arising from the irritation of pipes and teeth; chimney-sweeps' cancer, from the constant contact of soot; cancer arising from the worry of old ulcers and the fretted scars of old burns; and we might almost extend the list indefinitely. We might explain cancer usually occurring at the beginning and end of the alimentary canal, and missing, as Sir William Gull observed, twenty feet of small intestine, by the facts of the more irritating nature of the secretions of the parts, the longer continuance of their contents in contact with them, and the greater obstruction to their passage at the orifices of the stomach; but even if we could refer all cases of cancer to some source of local irritation, we should only be one step nearer an explanation—we should still require to know how it was that local irritations could cause an abnormal development of natural elements since we know that this is not the ordinary effect of injury or irritation. In this failure, therefore, of the localists, I turn to the constitutionalists, and the constitutionalists certainly bring forward some most powerful and impressive arguments to prove the presence and importance of a constitutional element in cancer. Sir James Paget's argument, from the peculiar manner of inheritance of cancer, that it is transmuted in transmission—the cancer of the breast in the progenitor becoming cancer of the stomach in the offspring, or cancer of axillary glands, or cancer of the eye, or, indeed, of any other part liable to the growth of primary cancer; his argument from the effects of injury in the production of cancer, just as the abnormal results of injury in cases where there is a gouty, scrofulous, tubercular, or syphilitic taint prove the presence of a constitutional taint; his argument from the peculiar manner and frequency of recurrence of cancerous tumours, the secondary cancer not attacking so often the same part as some distant part;—all these arguments, involving the facts of multiplicity and indifference of primary seat, did to my mind prove that which I should have thought no one could possibly have denied—namely, that there is underlying all cases of primary cancer some one common element in connexion with which cancer arises, whether that element be one belonging to tissue or one belonging to blood. But they do not in the least degree prove what the element is, and therefore Sir James Paget had to select his element, and the objects from which he had to select were some specific morbid material either in the blood or in the tissues, or some morbid condition either of the bloodvessels or the all-pervading nervous system or the connective tissue—in other words, the lymphatic system. I pass over the bloodvessels, as they are nothing without the blood, and confine my attention entirely to these three objects—a morbid material in the blood or in the tissues, and a morbid condition of nervous system or of lymphatic system. Sir J. Paget said that he could conceive that there might be some morbid material in the connective tissue, but he thought it safer and further removed from the unknowable to place it in the blood. With all due deference to so great an authority, I should have thought that if it were necessary to assume the presence of some morbid material, it would have been safer and nearer to the knowable to locate it in the tissues, for the following reasons. What we inherit from our progenitors is mainly types of tissues. We may, of course, inherit peculiar blood-corpuscles and peculiar qualitative differences of albumen or fibrin, but what we are chiefly distinguished by is peculiar types of tissue. Moreover the blood is constantly changing, and constantly being purified by the excreting organs, so that any foreign morbid material which had entered the blood would soon be removed from it, either by excretion through the natural organs or into the tissues. On the side of tissue we have the analogy of hydrophobia—if the facts be correct that a specific morbid material or morbid condition may continue in a part for a lengthened period. But that which is to my mind inconceivable is that any morbid material whatever could float about in the blood for an indefinite time without giving rise to a manifestation of some kind—that it should remain in the blood waiting for an appropriate nidus, and perhaps never manifest itself in the progenitor by appearing at an earlier period in the offspring. The analogy of all morbid conditions of blood is against such an hypothesis. The analogy of hereditary syphilis is against it. Hereditary syphilis is the only constitutional disease out of those referred to by Sir James Paget which we should be prepared to admit to be an hereditary blood disease. It may of course be at first a disease of tissue, but the blood at all events is affected soon after birth; and what

does hereditary syphilis teach? It teaches us that where the blood is affected at, or soon after, birth, a manifestation will take place at an early period, within three weeks or a month, as soon as the altered conditions of nutrition have time to come into play. And this is exactly the teaching of all morbid conditions of blood—a manifestation occurs in a very definite period after the infection. But in cancer the local manifestation may occur in the first decennial period, the second, the third, the fourth, the fifth, the sixth, the seventh, or not occur at all, but pass on and show itself, as I said, in the offspring. Another great objection to the view of Sir James Paget of an hereditary morbid blood material is that it does not account for the non-hereditary cases of the disease. With all Sir James Paget's great ingenuity, and vast experience and opportunities for observation, he cannot bring the proportion of hereditary cases higher than one in three. I should be quite willing to accede to him two out of three, or still more, if he would leave me a margin of non-hereditary cases, and then I would ask—How does cancer originate in the non-hereditary cases? It cannot be due to a primary morbid material in the blood. If any material is formed at all it is either formed by the assimilative organs out of the food, which no one would admit, or it is formed in the tissues; and if it can be formed by the action of the tissues why assume the transmission of any blood material at all? But I do not believe in the existence of any foreign specific morbid blood material either in the blood or in the tissues, hereditary or non-hereditary; and therefore omitting, for the sake of condensation, much that I should like to have stated in reply to Sir James Paget's arguments, especially in reference to the analogies of gout, scrofula, and tubercle, I will pass on to the nervous system. And with reference to that I will only say that whilst I entertain the most profound sense of the importance and influence of the nervous system in nutrition, as shown by facts familiar to all, which I need not recapitulate, we have not sufficient evidence to prove that the action of the nervous system alone could give rise to a cancer. And now all that there is left is the lymphatic system, which includes all the connective tissues and all the serous and synovial membranes in the body, and all the interstices of organs. The lymphatic system has been well described as one great unravelled gland spread throughout the body. I think that we can all understand that a part of this gland might fail, or the whole of it, and fail either temporarily or permanently. The office of this gland is, to my mind, to collect and reconvert into blood those materials in the tissues which can be no longer of functional service in the part, but are still capable of life, growth, and development. Now, supposing that the lymphatic growth should fail in its office, that those elements of tissue which ought to be taken up and renewed cannot be taken up but are left in the part, would not a tumour result? I do not pretend to bring before the Society a fully developed hypothesis, and I put the matter tentatively, for I come here rather as a learner than as imparting information, and I should like to hear something about this from Mr. De Morgan when he comes to reply. The considerations which direct my attention to the lymphatic system are briefly these:—The constant appearance of cancer in the connective tissue of a part and in the interstices of organs—that is, in the primary part of the lymphatic system; as, for instance, in the testicle and in the breast, and in the intermuscular spaces. The proper glandular structure is at first distinct, and, perhaps, spread out around the tumour. The not very infrequent origin of cancer in the lymphatic glands, and not only in one part, but in different parts of the body; and not only that, but there are instances, referred to by Sir James Paget, in which the whole lymphatic system has quickly become cancerous. How are you to explain such cases? Either cancer must be a blood disease, or a failure of the lymphatic system. To this I might add the frequent recurrence of cancer in the lymphatic glands at a considerable interval of time, perhaps some years afterwards. Again, cancer is a disease of parts where there has been great activity and constant tissue changes—alternate increase and retrogression, development and decay, evolution and involution. In such changes an immense stress of work must be laid upon the lymphatics. Cancer is also a disease of imperfect parts, and very liable to arise where there are frequent and profound tissue changes in consequence of local irritations. An old ulcer that is constantly healing up and breaking out again is very liable to cancer. We may suppose that the lymphatic system gets worn out. If Sir James Paget would abandon the blood hypothesis, I believe he would embrace a lymphatic hypothesis; for he said that he could conceive that cancer might be due to a morbid state of the connective tissue, and a failure of the lymphatic system would really account for many phenomena that now puzzle us. It would explain the temporary freedom from, and ultimate recurrence of, cancerous growths, the subsidence of enlargements of lymphatic glands on the removal of growths, the apparent cessation of the cancerous constitution, the occurrence of tubercular disease of the lung in a patient who had already suffered and was suffering from a cancer of the breast. It would explain the transmutations in the transmission of cancer; for the appearance of cancer in the stomach or other organ in the offspring, where the progenitor had suffered from a cancer of the breast, would really be analogous to the inheritance of a fatty tumour, not in the same part, but in some other part of the same tissue. It would also explain the occurrence of cancer late in life, when the lymphatic system was worn out, the reappearance of cancer after removal, not in the same part, but elsewhere, and the skipping of one generation and passing on to the next. It would explain also the occasional occurrence of the cancerous cachexia before the appearance of the primary tumour; for the lymphatic blood-forming system may have been working badly long before the occurrence of a tumour. And now before sitting down I should like to read to the Society a remarkable case quoted from Brücke in Sir James Paget's lectures. It appears to show how repeated irritations of the lymphatic system may ultimately end in a cancer. "A woman had a child at eighteen years of age. The child died when it was a month old, and her breasts were left to the disturbance which usually ensues in prematurely arrested lactation. At the age of thirty-four she received a blow on the right breast. This was followed by no manifest change of structure, but for some days by severe pain, and then for a much longer time by feelings of swelling and tension at the menstrual periods. At thirty-nine she received another blow on the same breast, which was followed by an increase of pain. Soon afterwards she was exposed to cold, and then there ensued erysipelatous inflammation of the breast followed by induration of the mammary gland. This, however, continued without change for four years, but then, after menorrhagia, a tumour appeared in the breast. When this was removed, or partially removed, it was found to be, not a cancer, but a cystic tumour with growths from the interior of the cysts. She remained well after this, the wound having perfectly healed for twelve years more, and in the interval she ceased to menstruate; but now, when she was fifty-five years old, after having a whitlow and inflamed lymphatics of the right arm, another tumour formed in the breast, which had every appearance of being cancerous. It was removed, but it recurred and ended fatally." In this case the coming cancer seemed to cast its shadow before. Such a case is, to my mind, an indication that there are many kinds and degrees of failure of the lymphatic system, and that while innocent tumours may arise from a similar cause the imports into the tissues being greater than the exports, the cancer may possibly prove to be the highest form of expression of lymphatic incapacity.

Dr. BROADBENT.—I came here, Sir, with certain ideas, which I thought were clear. I thought I had derived from the discussion hitherto certain definite notions. The first speaker this evening, Dr. Greenhow, did something towards disarranging those ideas, by speaking of hereditary, constitutional, and general, as if they were synonymous terms; as though a constitutional disease were necessarily a general disease. The last speaker has completed my confusion. I believe, however, that if one had time and opportunity to analyse his long speech, it would be found that his conclusions are very nearly identical with those expressed by previous speakers. I think he contradicted himself two or three times. He began by saying that, given a disease having certain characters which we recognise in cancer, all the subsequent effects are explicable on the ground of structure. He went on afterwards to say that, notwithstanding the evidences of extension from the original locality, as shown by Dr. Moxon at the previous meeting, some few facts of simultaneous evolution are to be set against all

these evidences. I think it may be of some little service, before I mention one or two things that I really came to say, to refer back to a few simple deductions from the course of the debate. It has been apparently forgotten by the speakers to whom I have referred that cancer is not a species but a genus, and that we cannot by a few remarkable cases settle the pathology of the disease. With regard to the term constitutional, I think a very excellent definition of it was given by Dr. Payne, who said that constitutional diseases are those in which internal causes are recognisable as distinguished from external causes. If we examine cancer by this light we find every phase of constitutional condition. In some cases the constitutional condition is everything, in some the local condition we may say is everything. Sir James Paget was remarking the other evening that chimney-sweeps' cancer had almost disappeared, and that it was apparently traceable to the soot derived from a particular kind of coal. Here, at any rate, we may say that the local causation is tolerably clear. A constitutional condition or constitutional disease may be hereditary or it may be acquired; but then, supposing a disease to be constitutional in this sense, that it has its origin in some internal tendency, that does not imply that the internal tendency is a general one; and when Mr. Rivington places the origin of tumours in the tissues, I think it would be difficult to show that he grants the whole case of the localists—that there is a single spot of tissue which, from some cause or other, begins this process, and it is the character of the changes which are initiated that constitutes the malignancy, so that malignancy has a local origin, although the tumour may have its source in a general predisposition. One need not go over the ground that Dr. Moxon has so well covered in regard to the distinction that exists between a local and a general origin of the disease. We do not find, I believe, that cancer has its origin in a general carcinosis; the cachexia results from the effects of local manifestations. There is one point to which I wish to refer in reference to the transmutation of the form of the disease as an instance of its being a general disease in the sense of a blood disease or carcinosis. Of all diseases which are transmitted hereditarily, there are no more striking instances than those of the nervous system; but we do not find any diseases of the nervous system that are clearly diseases of tissue. In looking back for neurosis in a family, we should have, as evidence of the neurotic tendency, epilepsy, migraine, neuralgia, insanity, and a variety of other disorders. Sir J. Paget, able as his argument was, made one lapse. In referring to the frequency with which the mamma and the uterus are attacked in the female, and accounting in this way for a greater frequency of the disease in the female than in the male, he said that cancer is a disease of old tissue, and when the breast and uterus are old, inasmuch as their function is over long before those of the rest of the system. This is clearly making it a tissue disease—which, if I may say so, is the point at which the localists are aiming—not a general disease. It is not the blood that is old, it is the tissue. It seems to me that that alone destroys the whole of Sir James Paget's argument for the blood origin of the disease. With regard to the arguments and speculations about the lymphatic tissue, if I were to go into that point I think I should be at issue with reference to almost every fact that was stated. I do not see why the lymphatic tissue should spontaneously go into disorder or riot any more than any other tissue; besides, the lymphatic tissue will as much require local causes as any other tissue.

Mr. RIVINGTON.—I did not mean to say the lymphatic tissue, but the lymphatic system.

The PRESIDENT.—I congratulate you upon the course which the debate has taken, and upon the admirable mode in which the views of the various speakers have been brought before the Society. I think, however, that three of the addresses have stood out "beyond compare"; they were addresses such as any Society in Europe might have been proud to listen to. I refer to the address with which Mr. De Morgan opened the discussion, that of Sir James Paget when he replied to it, and the address of Mr. Simon. In listening to those addresses, whatever might be our individual opinions, we might feel proud that we, too, were members of this Society—that we are English pathologists; we feel proud for the science that has produced three such men. I should not have addressed the Society at all upon this subject—for I have spoken but little, as you know, since I have held this office—because I felt that, as an histologist, I was rather a learner than a teacher, desiring to learn from those actually engaged in the practical working out of this subject; for I, in common with all those who have been long in practice, have ceased to pursue that special mode of investigation; and I felt that, if one took it up for a moment, one was quite as likely to rush into error as to drop into truth. I have therefore sat here quietly listening, often not agreeing, often thinking that those who spoke were wrong; and I may say that I have had the wisdom of my silence impressed upon me by some of the remarks that have fallen from some of the speakers in this debate. I have heard certain statements; I own I am not prepared to deny their truth; that the speakers believe them to be true I have not the least doubt, but that they are accurate observations I confess I have a sort of lingering doubt. For example, Dr. Moxon, for whose remarks I have a most profound respect, and who I am sure is always listened to in this Society as he deserves to be, stated that he had found the crypts of Lieberkühn in the liver. Now the crypts of Lieberkühn are not mere cells. I can understand the germs of those cells being there, but that there should be identically the same arrangement, that there should be the basement membrane there, that there should be a complicated structure with its vessels (and without that it would not be the crypts of Lieberkühn at all), I cannot quite understand. I do not say that he is not correct, but I feel that I should not be a judge if I saw it myself. I should think that I had it subjectively in my own mind, and that I probably projected it on to the field of the microscope, and that I saw it objectively, so that if I saw it myself I should mistrust my own observations. There are two other points to which I should like to refer. Mr. Hutchinson stated, as an argument in favour of the local origin of cancer, that if surgeons did not believe it they would cause the death of a great many patients. You are not to believe it because it is true, but because it is necessary that you should believe it in order to operate. Now I think that is a very bad argument. It is true or false. If it is true that cancer is local, it would still be a question how far it could be removed by operation. That is a question of numbers—a thing to be settled not by argument but by fact. The next point was that referred to by Sir W. Gull—namely, that the blood is an indifferent substance, and that it does not very much matter what our blood is. Now against this doctrine I would protest with all my might. I would appeal to any of you who have ever examined the blood in a truly malignant disease—I do not mean cancer, but I mean, for instance, malignant small-pox—where you could not point to a single special lesion of tissue, and where the patient dies within a day or two. I have seen in such cases a solution of hæmatosin oozing from the eyes, nose, mouth, chin, and every organ and outlet of the body, and the patient has died without a single spot on the surface. Is that blood unchanged? Is that condition of blood a matter of indifference? Surely every tissue in the body must be dependent for its nourishment on that blood, and if it is in such a condition it must surely interfere with the patient's life. What do you see if you put a drop of such blood under the microscope? When I was engaged in this work I saw repeatedly that the structure of the corpuscles was changed, and not only their structure, but their relations to each other. They ceased to form themselves into rouleaux, and they aggregated themselves into bundles—simple heaps. The liquor sanguinis was dyed with a solution of hæmatosin. Then take the cases of spontaneously coagulable blood. The blood coagulates again and again, until at last it coagulates in some part a channel through which is essential to life, such as the lung, the pulmonary artery, and the brain, and the patient dies. Here there is no change of tissue in the vein until it is subsequently inflamed from over-distension. I cannot regard the blood as an indifferent fluid. I regard it as a fluid of the highest importance, not merely the corpuscles, but the clot itself. It is not merely the solid particles that are coagulable, but the liquor sanguinis. Take also those cases of malignant disease—small-pox, erysipelas, and malignant typhus, where the fibrin scarcely coagulates, where the clots are of the loosest description. I think these facts are sufficient to put aside altogether the statement that the blood is an indifferent fluid. Again, Sir William Gull said he had always taught that if a man were all blood he could not have typhoid fever. Now, in the first

place, I cannot conceive of so sanguineous a mass; but if I could I am not sure that if the poison of typhoid fever could commingle with that mass there would not be a change take place in it which would be the first step of typhoid fever. But this I may say, if I could conceive of a man who had no blood, who was all solid, I am quite sure he could not have typhoid fever. If he could not have typhoid fever if he were all blood, and if he could not have typhoid fever if he had no blood, then, as we are made up of blood and solids, we ought not to have typhoid fever at all, and therefore (as someone said to me) "the worse for typhoid fever." There was another point referred to by Sir William Gull. He said (and I have long said the same thing) that diseases could not originate in the blood because they originated in the ovum, being communicated by the parent to the ovum when there was no blood present. There was no blood in the germ, and therefore, as the germ was impregnated, so to say, with cancer, it could not be a disease of the blood. Well, primarily not. Of course there is something preceding. But an adipose tumour is a disease of adipose tissue. Now, it is clear that the father has given adipose tumour to the child before it has adipose tissue, and that is all that would be meant, that in the process of differentiation the blood became especially the seat. Let me now say a word as to the question of constitutional and local. I think with many speakers that a clear understanding of the meaning of these words is all-important in the consideration of the question before us. I do think that some of those who have spoken have been a little lax in this matter. I will endeavour to express what I mean. The father, in impregnating the ovum, gives to that ovum a power of development, a power of differentiation (which I cannot admit is a bad word); and in differentiating into the various structures of the body, it will be seen that every structure partakes more or less of the qualities of the structures of the parent that impregnated the ovum. When a person has an adipose tumour, you say that the adipose tumour was inherited, but it was only a part of the general inheritance. He inherited the colour of his eyes, the shape of his nose, the height of his body—he inherited the power of growing more or less into the shape of his father; and not only so, but each tissue possessed the power of growing on and on in the same direction that the parent grew. The father impresses on the child not merely what is there at the moment of impregnation, at the moment when each tissue is differentiated into that special tissue, but he gives to that tissue—that is, to the aggregation of tissues—the power of growing on that he himself possessed, and the peculiarities that he possessed. He also conveys to the ovum or to the child, as it subsequently becomes, the date at which it shall die, and not merely so, but the date in which each of the several tissues shall die—that is to say, the order or the date of degeneration, and what is more, the mode of degeneration. In looking round this room I see, much, perhaps, to the sorrow of many of us, many bald heads. In how many families do we find persons getting bald about the same time? Now what is that but the death of the parts that produce hair-follicles? I say that the mode of developing and dying is given by the parent at the instant of impregnation. There is also given the power of growing and developing in special ways. That is given to all the tissues. It is something common to all, and it is that which we emphatically term the constitution of the person. When, then, I speak of cancer being a constitutional disease, I mean that it is an outgrowth or a local development possibly in every structure of the body, not merely, as Mr. Rivington would put it, in the lymphatic system, but, as Sir James Paget would put it, in every part of the system. That, I say, is conveyed at the moment. The parent himself may be unconscious that he has it. I may mention a case in illustration of this. An Italian gentleman came to me about twelve months ago. He was dying of cancer of the tongue. He was in the last stage of the disease, and in a most horrible condition. He had been under someone who had promised him a cure. He had then gone to Sir James Paget, who had not promised to cure him, but had told him that nothing could be done. This poor man told me as well as he could, partly writing it down, that he had been cruelly used by Sir James in being spoken to so plainly. At the same time he wished me to speak plainly to him. I told him of course that he would die. Then he told me the reason why he came to me. He said: "You have forgotten me, but you may remember that I lived at such a place, and that you came to see my child who died of cancer." Now that child twenty-two years before had died of cancer when two or three years old. I had made a post-mortem examination, and there was cancer in various parts, disseminated as it generally is in children. Twenty-two years afterwards the father died of cancer of the tongue. Now it seems to me that the father had given to the child not merely a power of growing in his own similitude, but also a power of developing in this particular direction that we term cancer. I have no doubt that most persons present have seen instances of the hereditariness of cancer in their own experience. Dr. Moxon told us that Mr. Birkett had told him, or that he thought he had told him (but he hoped he was not misinterpreting him), that cancer was not hereditary in his experience. Now I think that such a statement cannot weigh for a moment against Sir James Paget's and our own individual experience. I say it is hereditary. It is also true that constitutional conditions are acquired. I suppose I need hardly ask a surgeon here whether he has not hesitated to touch a patient with a knife, conscious that if he did the case would go badly. The general health was such that the man would surely die if he were touched. Again, almost everyone engaged in general practice—at any rate those engaged in hospital practice among children—will have seen such cases as I am about to refer to. It was not at all uncommon to see at the Children's Hospital mothers who brought children so out of health that they said, "He never pricks or scratches himself but the place festers." That seems to me to be a general state which is acquired. So I think there is a general, and, in this sense, a constitutional appearance of cancer; that there is a general condition affecting every structure of the body; the equilibrium of nutrition is disturbed, and the body bursts locally into cancer. Now, why does the patient burst into cancer here and there at many places? We know that local injury will produce it; that a disturbance of nutrition will take place which will eventuate in cancer from a blow. No one disputes for a moment the three propositions that Dr. Moxon advanced—viz., that cancer spread at the spot, that cancer affected the lymphatic glands next to the primary seat of the cancer, and that cancer often spread in the course of the veins. He said if we admitted that, we ceased to be constitutionalists. I do not admit that inference. A woman has an abscess in the breast; the lymphatic glands enlarge in the axilla; they may suppurate or not, or they may subside; they may inflame and subside, and the part be restored to health. Something is absorbed; it is not necessarily pus. There is a disposition in every part to burst forth into cancer when an exciting cause is applied. Something is absorbed from the part which irritates a gland, and, in the constitutional state of the patient, cancer is produced instead of abscess, or extravasation of blood, or thickening of tissue. Whether it goes by the lymphatics or the veins is a matter of insignificance. It would not develop into cancer unless you had a primary condition in the patient—viz., a disposition under irritation to form cancer. Reference has been made to spreading into adjacent parts, and it has been said that the cells had wandered from the original cancer to a particular part, and there developed. Is it necessary to admit that? Mr. Erichsen likened these cells to the "wandering Jew." It struck me at the time that they were, but perhaps in a different way, very like the "wandering Jew." Many persons believe in his existence, but I have never known anyone who has seen him. Mr. Simon referred to another form of growth, and he said he had been asked to remove a simple hypertrophy of the skin, which recurred. He then passed down needles, and around each puncture there came new hypertrophied skin. Now, Mr. Simon did not suppose, nor would anyone else, that these hypertrophies were due to any "wandering Jew." He said he believed he had not removed the whole part in which the hypertrophic tendency existed. So it is with cancer; they have not removed the whole part in which the cancerous tendency existed, and the irritation, whatever it might be, was sufficient for the renewal of the growth. At any rate, that is a possible explanation. One thing struck me very much. Where the needles were inserted there the hypertrophied tissue occurred. That is exactly what you find when you have cancer. I had a case in the hospital not long since in which a man had a number of cancers diffused throughout the body and in the peri-

toneum. There was fluid in the abdomen, and a great collection of gas in the intestine. The intestine was punctured twice with a fine needle, and the punctures after death were found surrounded with a cancerous growth. I think Mr. De Morgan has mentioned a similar case. It is common enough. It seems that the question of extirpation will still be left to the surgeon. It will not be decided *a priori*. These secondary growths, according to the view I have taken, may be developed from a something, not necessarily a germ—a something taken up (which irritates the part) in consequence of the constitution having this peculiarity.

Mr. DE MORGAN.—I am greatly gratified at the result of the paper which I had the honour of bringing before the Society. The discussion which has taken place I think has been most instructive and most interesting. The ground gone over has been very vast, and you can well understand that in the few minutes which remain I can hardly enter upon any one of the points to which reference has been made, for there is not one of them that has not occupied more time than now remains to me to refer to the various points that have been adduced. I may mention, however, that my feeling throughout has been this—and I felt it especially during the time when Sir William Jenner was addressing the Society in those admirable remarks that he has just made—that all that could be said with regard to the constitutional nature of cancer applied equally to the constitutional nature of any, the smallest, growth that can be found in the body. Whatever argument he could advance in reference to cancer being a peculiar constitutional disease I would advance in reference to a wart or a fatty tumour being a constitutional disease. As regards the hereditariness to which allusion has been made, I may say that I perfectly agree with Sir James Paget, that cancer is much more hereditary than is generally supposed. That fact is only in accordance with what we find in other tumours. Curiously enough, this morning I had a case illustrating three of the points alluded to in the paper. A lady came to me with cancer. She had cancer on the maternal side; she had a number of tumours on the head—she inherited them on the paternal side; and she had a host of those outgrowths which I alluded to as being so prevalent in cancerous patients (but which never develop into cancer), all over the arms and the side of the chest; she had a number of them before, but since the cancer came out she had a development of a dozen or more of these moles. Now why should you assume any special condition as connected with cancer which you would not with regard to these other growths? Surely the same argument will apply to the one as to the other. It seems to me that all that Sir William Jenner said comes exactly to this point: you have a constitutional tendency. That is to say, you have a certain condition of tissue under which certain changes will readily take place; but not, as Sir William Jenner says, in all tissues; because we find in cancer that the original disease will only spring up in certain parts; not, as stated by Mr. Rivington, or very rarely indeed, in the lymphatic system in the first instance. It is extremely rare to find primary cancer beginning in the lymphatics or the lymphatic glands. It begins externally to them—in the lymphatic spaces for aught I know—but I know little or nothing about that. Then, in reference to the observations made by Mr. Simon as to the propagation of cancer, I think Mr. Simon agrees with me that in the first instance it is local, but he thinks that there is a certain spermatic influence. The Society will remember, however, the statement made by Dr. Creighton, and also the statement of Dr. Moxon, which was quaintly put, but still I think to some extent correctly, that he had seen rectum cancer in the liver—that is to say, that, whatever the condition of primary cancer may be, you find a tendency towards that same form wherever the cancer disseminates itself. That fact shows that there is not what we should call a spermatic influence, because we mean by a spermatic influence what is understood with reference to the union of the particles of the sexes, that the two particles come together, one impregnating the other, the resultant being the resultant of the two. Now surely in the case of osteoid cancer, or cartilaginous cancer, or any other form of cancer, if you find that it springs originally as osteoid cancer, that you have it afterwards developed in the liver, in the lungs, and in various parts of the body, still maintaining the characters of osteoid cancer, you would not say that a spermatic influence had been exercised. If it were, you would get the characters of the new tissue in which it was planted—that of liver-cells, the appearance of the tissue of the lung, or whatever part it might come into. But you do not find that. I do not mean to say that you will always find that a cancer is exactly like the primary one, but you do not find it taking on the conditions of the parts into which it spreads. Therefore I should rather believe that it was an outgrowth of the part, that it comes into a place where it is arrested, where it is fit to grow, and where it grows and grows of itself. It is of the nature of a parasitic growth. If you have a parasite attached to a part, it will grow at the expense of the part, but not spermatically; it does not affect the tissue in which it lies so as to bring that into its own growth, but it grows at the expense of the tissue, and multiplies. That I believe to be the case with regard to cancerous growth. As to cancerous growth not being dependent on the general system, I may mention that Sir James Paget misunderstood very much what I said. I say that the general impression is that the constitution is involved, and that by constitution we mean an all-pervading something. I do not admit that the constitution, as I understand it, is just the same as a constitution that would produce a wart or peculiar features or the like. A person is born of a family with a tendency in the individual tissue to disease; that is not all over the body; and if it does not appear in the disease here, it must appear somewhere else. I do not admit that. I believe there are tissues of the body that will take on cancerous action; that they have it in them; that they are born with a tendency to warts or fatty tumours or anything else. Mr. H. Marsh brought forward as an illustration those interesting facts in pathology, showing that a person gets a blow upon the arm or a blow upon the leg, and cancer follows. He says you cannot conceive that a cancer was merely localised in the spot; that the blow happened to come upon the very spot intending to be the seat of cancer. Certainly not. I say that any part of the osseous tissue of that subject would be liable to become the seat of cancerous disease under injury. It is almost only in the osseous tissues that we get these rapid growths in the cancer after injury. We know that the myeloid tissue generally is very uncertain in its growth. It is more likely to be attacked with an irregular development than almost any other part in the body. Now what do we find with regard to those facts mentioned by Sir William Jenner in connexion with Mr. Simon's remark. A young lady has a tumour in the breast: you cut it out; the skin is apparently perfectly healthy; it is healed, but you find that a cheloid forms; you cut it out, and a cheloid forms again. Wherever you put a needle, a cheloid forms. You may cut other parts of the body, and a cheloid will show itself, but in others again it will not. You will not say that there is anything here peculiar to the whole constitution of the patient that determined the cheloid in that particular situation; it is a mere peculiarity of local development. I may mention a case which will illustrate this very point. A man was brought to the hospital with a compound fracture of the radius, and he came four or five days after the fracture with what may be called putrescent cellulitis. The arm was enormously swollen. There was gas in every part, having a filthy odour when let out, but the appearance was so peculiarly healthy that I would not interfere with it. His pulse was 84. He had a clean tongue, and ate well and slept well, and in himself he appeared to be wonderfully well, notwithstanding this enormous disease of the arm. By and by, however, his carpal bones became separated and were taken out. The ulna exfoliated, and was taken away. All this time his general health was good. All at once he was seized with peritonitis. I thought it was pyæmic peritonitis, and I was afraid that we had carried that experiment too far. He died, and it was found that the peritonitis was due to a portion of the gut having got entangled in some band that existed in a peritonitis which he said he had before. But what was the fact in regard to the other condition? The abdomen was full of colloid cancer. Here was a man with cancer developed in the abdomen, and with a great injury to the limb, going on for a couple of months, and yet who was so well that I refused to amputate. Now where was the general condition there which determined the cancer? Surely, you would say, here you have a disease tending to a certain part of the body but not pervading the body at large. The body at large may

be perfectly free from all disposition to form cancer. I say that is a strong case; it is a case, perhaps, that you would not meet with once in a hundred years, but there it was as a fact. The argument I made use of with regard to the existence of cancer in females was not satisfactorily answered by Sir James Paget. Dr. Crisp, at the last meeting, said that I was wrong in my conclusions. I may be wrong, but I know this, that of the 500 cases recorded by Sir James Paget, 330 occurred in women, and there was no uterine case mentioned. Now, if you add the immense number of uterine cancers, which are certainly as frequent as breast cancers, the number will come to pretty nearly what I said. Sir James Paget says that it is because in the female this particular tissue is so liable to change. It is true that the breast tissue is liable to great variation; but although we frequently find a breast inactive in which cancer appears, how frequently do we find it occurring in an active breast. And even in the breast in which the cancer exists it is not in the whole breast, but only in a part of it. If the breast is a retrogressive organ, and you get cancer developed because it is retrogressive, why is it that you do not get cancer developed in the opposite breast when it occurs secondarily, when that opposite breast has been going on two or three years beyond the ordinary period, and is, therefore, in a state of greater retrogression? Surely we should expect to find, if the retrogression had much to do with the matter, that the second breast would be as frequently the seat of secondary affection as the first breast was of the primary. But we never find that. I think that is an answer to Sir William Jenner when he talks about the mode in which cancer is distributed in certain parts. You do not find it in parts where you would expect to have it, but you find it spread here and there at long distances in the lung or in the liver, or in the leg on the opposite side, or in any situation you please, except—where? Except in the situation in which you do find primary cancer almost invariably—that is, in the uterus or in the mamma. The mobility of cancer as being the source of secondary deposits I suppose is pretty generally admitted. Mr. Arnott's observations on that point, supported as they are by many members of the Society, I think, go to show that mobility alone will not account for them. What do we find in regard to the most mobile disease we have? The most mobile disease is melanotic sarcoma, a form of disease where you get a secondary outburst after the primary one over every part of the body, deposits taking place in dozens, twenties, or fifties. Monsieur Legouest, one of the best observers, has discovered that in that form of disease the corpuscles of the blood and the fluid of the blood contain dark-coloured pigment matter. Evidently the blood which is thus dispersed over the body is diseased blood. Now, I say you cannot argue from that that cancer is a blood disease. It is diseased blood just as syphilitic blood is diseased blood. Syphilitic blood is not primarily diseased blood unless it is born in the person. A person has syphilis; the blood becomes diseased, and if you inoculate it you will produce disease in another person, or get an outburst or something of that kind. It is not a growth; it is a deposit showing that there is malnutrition in some parts of the body—that is, a secondary condition dependent upon the primary inoculation. Here you get melanotic disease in the first instance before the secondary deposits take place. Examine the blood, and none is found. But if you come to interfere with that, and you get this matter carried into the system, you get it dispersed anywhere and everywhere. It grows by reproduction of the same disease as was originally inoculated in the blood—that is to say, it grows as melanotic sarcoma. If you compare that with true blood disease, with disease in which the blood becomes diseased by inoculation, what a wide difference there is. In the case of melanotic sarcoma, you get the melanotic sarcoma developed everywhere; in the case of syphilis, you get here a pustule and there an eruption over the body; you get a deposit of something here, and you get in another place an ulceration and a whole host of things not by any means like the primary disease that was inoculated, but a number of phenomena connected evidently with a diseased condition of the blood. In these cases of syphilis you may have, as Sir James Paget says, a total freedom from all disease for a long period. But the patient is not free from disease. For if offspring is begotten, the chances are that the child will be ill-developed. Something has been propagated that interferes with the nutrition of the offspring, and the offspring will be syphilitic. You do not find that in cancer. A question was asked the other day, as to whether, in the case of children of parents having cancer, there was anything analogous to what was found in syphilis. Certainly not. I have seen many cases in which the patient has died of cancer, and children have been born while the cancer was progressing. I remember the case of a child whom I removed by the Cæsarean operation from a woman who had cancer of the uterus. The child was born perfectly healthy, though the uterine cancer was going on around the very situation in which the child was developed. You do not find that in syphilis. If you have syphilis developed in the body, there will be something in the growth of the offspring indicating that the poison is there present. I must confess that the whole course of the argument has tended rather to confirm me in the view that originally cancer is a local affair, in the same sense that any peculiarity that we have in the body is local. It may be determined by some primary conditions of growth, but of that we understand no more than we understand the reason why bones are developed in certain forms, and why muscles are developed in certain forms. It is impossible to go into it. But there is a something in the tissue itself—I believe in the whole range of the tissues—it may be throughout the bones, or it may be throughout connective tissues, or it may be throughout any of the parts in which we have disease tending to develop primarily. If you have a cancerous mother you have cancer, not developed in the breast where it existed in the mother, but you may have it in any other part of the tissues in which a similar structure is present. A parent has a fatty tumour of the shoulder, and the offspring may have a fatty tumour in the arm or leg. But there is nothing in those persons that would necessitate the formation of cancer in some part or another. Suppose where there was an original tendency to cancer the breast was removed before the cancer was developed, I believe there is no special reason why cancer should develop at all. You do not know of the early existence of cancer in the uterus or the breast, because long before the persons themselves are aware of it the cancer has advanced, and disseminates itself throughout a wide range. I beg now to return my best thanks to the Society for the manner in which they have received this paper. The remarks that have been made respecting it will do what cancer itself does—they will germinate (spermatically or in some other way) in the minds of those who have been paying attention to the subject. No doubt, as Sir Roger de Coverley says, "there is a great deal to be said on both sides," but I trust that the result will be that we shall arrive at some important truths in regard to this subject, and every truth that we do acquire will have its bearing sooner or later upon actual practice. I do not mean to say our views will lead us to a method of curing cancer, but we shall be led in the direction in which we can apply remedial agents, or, if not, we must fall back upon the only alternative left us, that of removing the disease as soon as possible after we have ascertained its presence.

The debate then terminated.

THE FORTHCOMING ELECTION INTO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—In reference to the forthcoming election into the Council of the Royal College of Surgeons, this statement is made in a contemporary:—"Among the candidates spoken of are Mr. Savory, Mr. Baker of Birmingham, and Mr. Cooper Forster. Next to these in seniority stands Mr. Henry Smith, who has not yet, we believe, announced his intention."

Will you allow me to correct this error. I was elected a Fellow in December, 1849, whilst Mr. Savory and Mr. Baker were elected, each of them, in 1852. Mr. Cooper Forster is my senior by some few months.

I remain, Sir, your obedient servant,

Wimpole-street, W., April 22nd, 1874. HENRY SMITH.

THE LANCET.

LONDON: SATURDAY, APRIL 25, 1874.

THE discussion on Cancer has at last reached its termination. The interest, which appeared to flag on the third evening, gave evidence of renewed activity last Tuesday, in the greater number of members present, and in the frequent signs suggestive of assent to the opinions expressed during the course of the meeting.

The debate has maintained its character to the end. It has been a debate chiefly, almost solely, as to the constitutional or local origin of cancer. Indeed, Dr. GREENHOW spoke of it as a discussion on the clinical characters of the disease, which might scarcely have been expected from a Society devoted to pathology. We showed in a previous article how during the first two meetings Sir JAMES PAGET was almost the only upholder of the constitutional theory. Since then his views, or a portion of them, have been strongly supported by other and able speakers. Even in point of numbers the constitutionalists almost equal the localists; whilst in point of force the names of PAGET, JENNER, and GREENHOW are alone an evidence of strength of reasoning and great experience.

As a localist, Dr. MOXON expressed himself more strongly than any previous speaker, except perhaps Mr. HUTCHINSON. Instead of taking the word "constitutional" as opposed to "local," he replaced it in this position by the term "general." Then, giving a strong and fixed definition to "general," to the effect that there is "a general state of the whole system which is ready to put out cancer anywhere, and puts out the first in the same way as it afterwards puts out the second or third," he proceeded to bind down all those who believed in the constitutional origin to this definition of the theory. If they could not or would not subscribe to this, he would claim them as localists. Having fixed the constitutionalist to this stake, it was not difficult to demolish him. The speaker strongly objected to the middle course which had been taken—to the bringing in of some ambiguous word which should cover the essential difference between the local and general views. In spite of this objection, we cannot but think that the term "constitutional" has been fairly enough used by many of the speakers. For years past we have been taught that in the production of many diseases two causes are at work—an exciting and a predisposing cause. When the latter is hereditary, and when it extends over a more or less considerable area of tissue, we are in the habit of looking upon it as a constitutional cause. In this sense has the word "constitutional" been employed by many during the discussion. Nor can we see any reasonable pretext why it should not be thus used. This predisposition has been vaguely hinted at by some; by others it has been placed in one or other part of the body. Thus Mr. RIVINGTON, on the concluding evening, after balancing fairly the two sides of the question and opposing the doctrine of a blood-origin, stated his conviction that the origin of the disease was in the lymphatic system, and that a predisposition, whenever any such existed, was most likely to be found there. His theory was not supported by the same ocular proofs which KÖSTER has, during the last year or two, brought to bear upon this subject. Indeed, the arguments with which the belief was backed were scarcely strong enough to induce the sceptical to adhere to this opinion, and the frequency of cancer arising primarily in the lymphatic glands was denied by so experienced an observer as Mr. DE MORGAN. At the same time, in the very broad view of the lymphatic system which was taken by Mr. RIVINGTON, it is quite possible that some if not all cancers may originate in this system. In some respects Mr. ERICHSEN's speech was scarcely so happy as might have been expected. In explaining the diffusion of cancer, which seemed already to have been fully and satisfactorily explained, he drew attention to the great vascularity of cancers as opposed to that of other tumours, and to the almost universal lack of capsule by which they are characterised. Owing to the first of these peculiarities, the cancer elements were more liable to be washed away in the blood-channel to distant parts. From the want of capsule, complete removal was difficult; local recurrence, therefore, more certain. With regard to the former of these two points it must not be forgotten that few cancers are more plentifully supplied with bloodvessels than are the spindle-celled sarcomata—the recurring fibroid; yet it is a notable fact that these tumours may recur again and again *in situ*, and may never, even after many years, affect distant organs. More than this, it has been pointed out of late years that the vessels in the interior of many of these sarcomatous tumours have no more proper membrane than a layer of cells, oftentimes similar to those composing the tumour itself. A disposition more likely to favour transmission to other parts can scarcely be imagined. Again, although the carcinomata are rarely enclosed within a capsule, it has been frequently shown that the recurring fibroid tumours are not uncommonly encapsuled. When this is the case we should expect that the growth would be likely to be completely removed. Nevertheless, after most careful removal, and with a full knowledge of the nature of the disease, these growths recur just as certainly and just as quickly as if there had been no capsule. Under these circumstances we can scarcely lay so much weight upon these two points as Mr. ERICHSEN appears to think them deserving of.

Sir WILLIAM JENNER's speech alone would have sufficed to give life and vigour to the termination of the discussion even without the able speeches of Dr. GREENHOW and Mr. RIVINGTON. It was a summing up, and certainly an admirable summing up, of some of the points which had been brought forward by previous speakers. But it was not the impartial summing up of the judicial bench. The president was far too one-sided for this. He was on the side of the constitutionalists without doubt or reserve, and to this effect he expressed himself. We need not say anything of Dr. MOXON's statement as to the frequency of hereditary tendency as opposed to that of Sir JAMES PAGET. It was strongly and not too severely criticised by Sir WM. JENNER. Sir WM. GULL's theory of the indifferent nature of the blood met with a like treatment. Indeed, few of the lapses

of the greater speakers had escaped the learned President, who handled them as firmly as skilfully, warming to his subject and growing eloquent as he proceeded. His own views of the constitutional origin of the disease were as sound and temperate as might have been expected from so able and experienced a physician and pathologist.

In answering the various speakers, Mr. DE MORGAN was too much pressed for time to be able to do justice in a reply so full as might have been expected. He therefore contented himself with observing that the effect of what had occurred during the debate had rather served to strengthen him in his opinion as to the local origin of the disease. Indeed, he begged that it might be understood that he was even more a localist than Sir JAMES PAGET had given him the credit of being. At the same time, believing as he did that cancer was of local origin, he could not entirely deny some sort of predisposition of which we at present know little or nothing, and which, therefore, we are not in a position to discuss.

After all, then, we conclude that what we observed in a former number was not far removed from the truth—namely, that if terms had been rather more strictly defined there would have been little difference found between the two sides. For, whilst the upholders of the constitutional origin freely grant to the localists that cancer originates in some one place in the body, all that they desire from the localists in return is the admission of the existence of some predisposition of which at present we know little or nothing, but which when once granted is easily enlarged into a constitutional cause.

THE Medical Mission, whether among the savages of Central Africa or the hardly less savage denizens of the courts and alleys of our great cities, is, if properly organised and worked, one of the most effective auxiliaries of civilisation. Well did the astute legionaries of LOYOLA perceive this when, following up the unsystematised efforts of LAS CASAS and XAVIER, they made the amelioration of the physical condition of the savage the groundwork on which they wrought his conversion and established him in the faith. In their propagandist enterprise they ransacked nature for the means of extending and enhancing their influence, and so became indirectly the promoters of natural and particularly of medical science. Protestantism has followed—how tardily!—in their wake, and within the last fifty years has numbered many a minister of Gospel truth and intellectual enlightenment among the missionaries it has sent forth to "heathenesse." For eighteen years Dr. LIVINGSTONE laboured hard in this twofold work, making incidental observations and starting new pathways of research, which it will be the province of the next generation to develop. Among the less distinguished soldiers in the same honourable service may be cited the Right Reverend Bishop MACDOUGALL, who dedicated his sound medical education and his experience in the wards and dissecting-rooms of King's College to the propagation of the Gospel in the Bornese archipelago. Other instances are not lacking; but the success which crowned the exertions of these well-known missionaries suffices to show how wide and fruitful is the field for after-comers to go and do likewise.

Indeed it would not be difficult to prove that missionary labour has been effective and lasting in proportion as it has invoked the aid of the medical man. It is useless appealing to the mind when the physical conditions in which it lives and moves and has its being are conducive only to degeneration or savagery. Just as sanitary legislation is now beginning with the dwellings of the poor before entering upon the task of enforcing cleanliness and sobriety—just as the reclamation of the cretin or the imbecile is brought about by improving his bodily surroundings and working on his mind through its physical conditions,—so the enlightened missionary has at length satisfied himself that mere Gospel-preaching is in vain, unless accompanied, if not indeed preceded, by social and individual amelioration. Animated by this truth, an effort is being made to organise on a better footing than heretofore the means of civilising the lower races of mankind. An appeal comes to us from the Medical Missionary Society of Edinburgh for assistance in its endeavour to found a "LIVINGSTONE Missionary Memorial," to take the form of an institution in which the young men destined for the medico-missionary service shall be adequately educated. Hitherto the Society has done good work; but the extent to which its field has expanded has enlisted more recruits than it can accommodate or train. Applicants for the education it affords come in with increasing force from month to month; and they will long continue to do so ere the supply be at all equal to the demand. Meanwhile no effort should be spared to furnish those already received or in course of admission with greater facilities for qualifying themselves than they have as yet enjoyed; and it is with this view that the Society appeals, not only to the profession, but to the public at large. A sum of £10,000 would suffice for the building they contemplate; and once let it be known that the family and the friends of LIVINGSTONE have accorded their hearty approval to the undertaking and surely there will be no lack of subscriptions to an object in every respect so worthy.

The profession has a distinct interest in supporting this "Missionary Memorial," not only as a tribute to one of its most illustrious members, but as a movement which will heighten the efficiency of the medical missionary. As a rule, the young men attached to the Society have been much stronger in theology than medicine; and the service has been rather discredited by the ignorance they have sometimes displayed when face to face with disease or surgical injury. The age of miracles is past; while prayer will be none the less efficacious if it has been preceded or is accompanied by the best means for the physical relief of the sufferer. Of all this no one was more convinced than LIVINGSTONE himself, whose sturdy common sense and practical knowledge of the world and its ways kept him free from that "excess of faith" which many call fanaticism. We congratulate the Medical Missionary Society on its enhanced appreciation of the value of medicine as a factor in its undertaking, and we heartily endorse its appeal to the public and the profession for the means of raising an institution which shall produce worthier successors of LIVINGSTONE than its previous resources seemed likely to send forth.

WE have received from Sir CHARLES TREVELYAN a copy of a Memorial from a large number of well-known clergymen and laymen residing in the neighbourhood of St. George's Hospital relative to hospital out-patient reform. The memorial is signed by the Duke of WESTMINSTER, Sir JAMES PAGET, Sir WM. FERGUSSON, Sir WM. GULL, Mr. T. HUGHES, Lord EVERSLEY, the Earl of SHAFTESBURY, the Right Hon. GATHORNE HARDY, Mr. A. D. HAYTER, the Rev. R. LIDDELL, and many others. It recites "that the out-patients of St. George's Hospital and the neighbouring free dispensaries, by their gratuitous provision for even the most ordinary medical treatment of the working classes, have, however unintentionally, largely contributed to encourage them in improvident and mendicant habits," and that although, according to a rule lately adopted, a certain number only of new cases are seen every morning, this does not touch the root of the evil. A system of medical relief "on sound principles" has, however, been gradually formed around St. George's Hospital by the establishment of the Royal Pimlico and the St. Paul and St. Barnabas dispensaries: the former of which, in its first complete year of existence, included 2358 working-class members, whose payments amounted to £204; and the latter, established originally in 1849, and having been recently placed entirely on the provident footing, now numbers 1366 members, with payments amounting to £96, the rates being in this case abnormally low. The memorial proceeds to report that "the St. George's Dispensary, which is united to the parent hospital by many ties besides those of name and neighbourhood, has been converted to the provident system by a laborious process extending over two years." The memorialists, therefore, request that the provident system may receive "the official recognition of the Board of Management of the hospital, and that their arrangements may be modified to suit this altered state of things." It is suggested "that admission to the out-patient department should for the future be confined to cases which, on account of their difficulty, gravity, or other peculiarity, require hospital treatment; and that all the ordinary trivial cases, which had best be treated at or in the immediate neighbourhood of the homes of the patients, should be referred to the provident or (if the applicants are entirely destitute) to the Poor-law dispensaries. We [the memorialists] also suggest that the committee or medical officers of the dispensaries should be authorised to recommend for treatment in the hospital such cases as from their peculiar or difficult character, or from their requiring prolonged clinical treatment, can be best dealt with at the hospital." The memorial concludes with a remark to the effect that provident dispensaries would offer "suitable employment and just remuneration" for the younger members of the medical profession residing in London.

We have endeavoured in the foregoing to give to our readers the pith and drift of the memorial, which has already been submitted to the Weekly Board of Governors of the Hospital. On the eve of going to press we have received some correspondence on the subject, which in another column we lay before our readers *in extenso* without comment, reserving criticism until next week.

Medical Annotations.

"Ne quid nimis."

PUNIC FAITH.

AMONG the many more or less surprising incidents which have occurred in the course of the dispute between the committee and secretary of King's College Hospital and the lady nurses of St. John's House, not the least discreditable is that in which the name of Dr. W. S. Playfair figures conspicuously. It is well known that that gentleman, in common with the majority of his colleagues of the medical staff, has espoused the cause of the ladies; but it now further appears that he wrote, under the shield of the editorial anonymous, an article in the *British Medical Journal* of Feb. 14th, in which the conduct of the secretary was sharply impugned. It might have been as well if Dr. Playfair had not written that article while the question was still *coram judice*; but there could be no objection to it provided it were written *bonâ fide*, as the honest expression of an opinion which the editor of the *Journal* was willing to endorse; but it would have been well for Dr. Playfair to have made sure that the editor would adhere to the supposed universal custom of editors, and preserve absolute secrecy as to the authorship.

In a subsequent number of the *Journal* there appeared an annotation in which such very humble apologies were made to the secretary of the King's College Hospital for the censures which had been previously passed on his conduct, that it was evident — and the remark was made in medical circles—that some powerful personage had exercised firm, not to say violent, pressure on the editor. Who this personage was might never have been known had it not been for the final scandal which has now exploded. It appears that the editor did, "in confidence," give up the name of Dr. Playfair, as author of the obnoxious article, to Sir W. Fergusson. The next stage in the business is that we find Sir William communicating his discovery to the injured secretary; whereupon there ensues a general explosion. Dr. Playfair finds himself, on due consideration, bound to withdraw one or two expressions in his article which were susceptible of a harsher interpretation than he would himself have approved; but he very naturally turns round in indignation against the individual or individuals by whom he has been betrayed, and in a letter to the Committee of King's College Hospital, of which we publish a copy, plainly intimates that the matter cannot rest where it is. The editor of the *Journal* has assured Dr. Playfair that he gave the information confidentially to Sir W. Fergusson in his capacity of President of the British Medical Association. We shall be interested to learn what Sir Wm. Fergusson has to say to this statement, and especially whether he received any intimation from the editor that the information was private and confidential; as no doubt the opinion of the profession will be greatly influenced by the precise circumstances attending the disclosure to Sir William of the name of the author. The whole incident is, at any rate, instructive, as showing what a charming prospect lies before those ingenuous persons who imagine that they can write "confidential" leaders for the *British Medical Journal*.

LIEBIG'S EXTRACT FOR THE SOLDIER.

A RECENT number of *Le Soleil* contains a long and interesting article on soldiers' diet. In reviewing the causes that led to their destruction in the last war, Frenchmen blame the badness of the military hygiene; in particular the cumbrous, obsolete way in which the soldier was fed. What

reader of the despatches from the various battle-fields, from Weissenburg to Sedan, can forget the frequency with which our lively neighbour was surprised over his eternal "soup-kettle"? *Fas est et ab hoste doceri*; and the substitution of the pot of Liebig for the *pot-au-feu* is now universally demanded for the French soldier. From it he can get on the march, twice or thrice a day, an excellent soup, infinitely preferable to what he could formerly prepare in similar circumstances. By a few additions, the extract can be made to fulfil all the purposes of a complete diet. Salt, biscuit or bread, a little of the lard which constitutes the chief element of the rations in the field, above all, a few legumes, fresh or preserved, and Liebig supplies a sustaining and palatable meal. During the march to Coomassie the extract preserved its virtues unimpaired, while other portable preparations yielded to climatic influences. Its portability, indeed, ensures regularity of supply, while it dispenses with the droves of cattle which impede the battalions they accompany, and frequently engender disease when they do not die of fatigue. In the Austrian army under the Archduke Charles in 1797, over-driven cattle, from the deterioration of their tissues, caused an outbreak of enteric fever among their equally over-marched consumers. The extract would prove not less beneficial in the ambulance department, where wine and warm soup are the sheet-anchor of dietetics. *La soupe fait le soldat* is likely to remain a maxim of the French commissariat in spite of the virtues of the pea-sausage, exemplified as they were in the war of 1870-71, and still further on the Russian march to Khiva.

THE HOSPITAL SATURDAY FUND.

THE conference, on the 18th inst., between the Hospital Sunday Council and the representatives of the Hospital Saturday Committee and the six working men elected at the meeting of the 11th, resulted in the adoption of the following motion:—

"That six members of the Hospital Sunday Committee should be elected on the Hospital Saturday Committee, and six members of the Hospital Saturday Committee should be elected on the Hospital Sunday Committee, with the view of causing harmonious action."

This resolution was proposed by Mr. Savage and seconded by Mr. Mottershead. The majority of the working men seemed to wish to remain distinct from the Hospital Sunday Council. As we said before, the business is entirely their own; and it is not altogether unnatural that they should wish to act independently of the Council of the Hospital Sunday. Nevertheless, there is something ungracious and unsagacious in this independent course. The end which the Saturday collectors have in view is the same as that of the Sunday collectors. Not only so, the Saturday movement was begun last year by the Council of the Hospital Sunday. Further, working men cannot justify the preference of a third-rate skin hospital as a centre to the Mansion House, nor the preference of the chairman of such an institution to the Lord Mayor as chairman to their movement. Still we repeat that in our opinion working men should be left to work in their own way, and that it would not be wise to press upon them advantages which they do not care for. Captain Mercier did well to resign the chairmanship of the Saturday Fund, but he did far from well in taking it again. He is not a working man, and he advocates working men being left to themselves, and he is the chairman of a hospital. Moreover, it is impossible to invest him with that show of impartiality which should attach to the chairman of a fund for the benefit of all the hospitals and dispensaries of the metropolis. If his favourite hospital is cut off without a shilling, as it was by the Distribution Committee of last year, people will attribute it to a false delicacy on his part, and if it receives largely out of the working men's fund, the fact will be attributed to his influence on the Committee.

The Committee of the Hospital Saturday Fund has accepted the principle of the above resolution and appointed six members to sit on the Hospital Sunday Committee; but the Council of the Hospital Sunday Fund has declined for the present to enter into any organic relation with the Saturday Committee, feeling that in the present divided state of opinion of the working classes as to the best machinery for collecting their subscriptions, it is better to reserve its perfect freedom of action. There can be no doubt of the propriety of this resolution. And there can be little doubt that when the working men have fully considered the matter they will, in proper public meeting assembled, appoint a committee of their own order, and a chairman unconnected with any hospital.

CONSERVATIVE PROFESSIONS AND MINISTERIAL PERFORMANCES.

WE should like to call the attention of the profession to a fact which may tend to modify the somewhat enthusiastic faith with which medical reformers have been inclined to receive the professions of Mr. Disraeli as to his anxiety for sanitary reforms. A circular has been recently issued by the Local Government Board, requesting that the earliest possible information may be supplied by district medical officers to the officers of health respecting the occurrence of any infectious disease in their respective localities. This is a request which in itself is proper enough, but it must at once be obvious that it will entail large additional labour on the district medical officers; nevertheless, the Local Government Board does not offer the least additional remuneration. This would seem to intimate that the Local Government Board is still entirely guided by the bad traditions of its permanent staff. Nor does the chief of the Government, notwithstanding his professions of personal interest in sanitary matters, appear inclined to treat the medical officers any better, for, in reply to a request from Dr. Lush, M.P., he has declined to receive a deputation on the subject from the Council of the Poor-law Medical Officers' Association, and has referred the Council back to the Local Government Board. We fear that unless the medical profession shows a more resolute front towards the present Ministry than it did towards the last one, it will be as coolly shouldered aside by the *inventor* of "sanitas sanitatum" as it was by the so-called "cheeseparing Administration."

ROYAL MEDICAL BENEVOLENT COLLEGE.

HAVING come all the way from Sandringham, the Prince of Wales acquitted himself with his accustomed tact and good sense at Willis's Rooms, on Wednesday, when the eighteenth festival of the Royal Medical Benevolent College at Epsom took place under his presidency. There was a large attendance of the heads of the profession. After reviewing the rise and development of the College, his Royal Highness dwelt on the invaluable services it had vouchsafed to a profession, many of whose votaries, from the very nature of their calling, are apt to be cut off in their prime. The school contains two hundred resident pupils, the sons of medical men, fifty of whom, as foundation scholars, are educated, boarded, clothed, and maintained at the expense of the institution, while, thanks to the munificence of Mr. Erasmus Wilson, a house has just been built to hold forty additional boys. The school funds require to be increased, particularly as each foundation costs £60 a year. His Royal Highness made an impressive and we doubt not an ultimately effective appeal for further

subscriptions and donations. At another stage of the evening, the Prince of Wales, surrounded as he saw himself by so many medical men, made handsome acknowledgment of the obligation under which England lay to the profession, particularly in her army and navy. Referring to a surgeon in the late expedition who had performed a difficult operation under fire, he added that this was but one of many similar feats which England regarded with pride. Sir James Paget having proposed the health of the President, officers, and members of the Council—a toast which was heartily received—the assemblage broke up amid some stirring strains from the band of the Coldstream Guards.

THE QUEEN'S VISIT TO NETLEY.

ON Monday, the 16th instant, Her Majesty carried out her gracious intention of visiting the sick and wounded at Netley Hospital. The Queen was accompanied by the Princess Beatrice and Prince Leopold, and the Commandant of Netley, with Surgeon-General Balfour and the medical officials, were present on the pier to receive the royal party. The Ashantee invalids were grouped together in the Medical Division of the establishment, and Her Majesty went round and saw them all, addressing questions to some, and expressing sympathy with others—more especially the wounded invalids. Her Majesty also visited the officers, and was apparently much pleased at the improvement which had taken place in Captain Butler's condition. Professor Maclean and Surgeon-Major Webb conducted Her Majesty through the wards containing the medical cases; and Prof. Longmore and Surgeon-Major Porter through those containing the wounded. Surgeon-Major Dr. Bleckley and Drs. Fleming and Kynsey, of the medical staff of the *Victor Emanuel*, had the honour of being introduced to the Queen, who, on leaving, graciously expressed approval of all she had seen. In returning to Osborne, the vessel bearing Her Majesty steamed round the *Victor Emanuel*, receiving a hearty cheer from those on board.

DR. SEDGWICK SAUNDERS.

THE Corporation of the City of London has an opportunity of electing a gentleman as medical officer of health who is worthy to succeed Mr. Simon. The *Pall Mall Gazette*, however, is making an attempt to raise a purely technical objection to the appointment of the most eligible candidate, who, it appears, has had the misfortune to serve the City well during an epidemic, and who has already earned the good opinion of such a man as Dr. Farr for his exertions in circumscribing the mortality of London during the cholera period. The objection raised is that the gentleman in question is a City man, and that City appointments should not be given to City men. It is an ordinary custom for a member of Corporation, when a candidate for a City post, to retire from membership; and this the candidate has done. The same practice is pursued in the case of medical guardians when one of them applies for a post under the Board. We trust that the Corporation will not allow itself to be worked upon by undue influence.

THE FEATURES OF ARTHUR ORTON AND ROGER TICHBORNE.

WE have been favoured with a very able pamphlet by Mr. F. Piercy, the memorial portrait painter of Pall-mall, in which he seems to us clearly to demonstrate that the features of these two persons ought never to have been confounded together. The pamphlet contains lithographic reproductions of enlarged photographs taken from the portrait of Roger known as the Chili daguerreotype, and from a portrait of Orton, which was one of the last taken and most nearly approaches the Chili portrait in pose. By these one is enabled to see at a glance that the eyebrows, eyes, nose, and mouth of the two faces do not in the least degree resemble one another, excepting that they both possess "what is inseparable from humanity." The faces, in fact, belong to distinctly different types, and Mr. Piercy points out that a line drawn through the commissures of the eyelids forms in Roger's countenance an angle greater than a right angle with the mesial line of the face, but that the same angle in Orton's face is less than a right angle.

There are lithographs also of Orton's left ear and Roger's left ear, which show that not only was Roger's ear pointed, with an attached lobe, while Orton's is rounded with a free lobe, but that Orton's ear is three-quarters of an inch longer than Roger's.

Two portraits of the artist's right ear are given, the one taken in 1857 and the other in 1873. There is no mistaking the identity of these two ears, notwithstanding the interval of sixteen years, and the fact that Mr. Piercy has himself "increased very considerably in bulk" during that time.

The sun is a witness who is never likely to be tried for perjury, and under Mr. Piercy's guidance would be almost certain to confute any future false claimant to estates.

MIDWIFERY LICENCE FOR MIDWIVES.

THE King and Queen's College of Physicians in Ireland has adopted the following rules and regulations respecting female candidates for examination for a licence to practise as midwives and nurse-tenders. We are not aware of any other licensing body that deals similarly with women who wish to practise midwifery upon the strength of a qualification from a recognised examining authority. We approve of the step of the Irish College. The scandal of ignorant midwives is too great to justify the corporations in looking coldly on without any effort to mitigate it. The candidate is to be not less than twenty-one years old, and is to have a certificate of character. She is to pass an examination in reading, writing, and arithmetic; to undergo a course of instruction consisting of six months' attendance on systematic lectures on midwifery, and not less than six months' attendance on bedside instruction in a lying-in hospital or maternity recognised by the College. The subjects for examination are midwifery (not including operations) and nurse-tending, and the examination fee one guinea. The following is the form of licence which the successful candidates are to have:—

Form of Midwife's Licence.

"We, the President and Fellows of the King and Queen's College of Physicians in Ireland having duly examined ..... in Midwifery and Nurse-tending, and having found her to possess a competent knowledge of the same, do hereby license and authorise the said ..... to exercise the calling of a Midwife and Nurse-tender."

PETROLEUM AS AN ANÆSTHETIC.

THE Abergele tragedy of August, 1868, is not yet forgotten, in spite of many formidable rivals in the interval; nor, perhaps, the controversy started at the time as to whether the victims died a painless or an agonising death. One theory was that the explosion and the combustion were simultaneous, while the petroleum produced anæsthesia. A correspondent in *The Times* corroborates this view, *apropos* of a recent case in which a husband and wife both perished from narcotism by petroleum. That substance is a mixture of homologues belonging to the marsh gas family, which for many years have been recognised as powerful anæsthetics. Some fifteen years ago an attempt was made to introduce one of them—the hydrid of amyl—as a substitute for chloroform. There is little doubt, indeed, that the theory of in-

stantaneous death by shock, combustion, and anæsthesia is the true one, and that the Abergele accident was a much more merciful mode of death than that of many of its subsequent competitors.

THE ASHANTEE NAVAL INVALIDS.

OWING to the presence of some cases of scarlatina in a building separate from, but in the vicinity of, the hospital proper, Her Majesty had to disappoint the naval invalids under treatment at Haslar, and postpone her intended visit to that establishment. Our sailors and Royal Marines have had a disproportionate amount of work in the late war, and they suffered accordingly. The force of Royal Marines who were engaged in the earliest encounters with the enemy and, what was worse, with the climate, lost, it will be remembered, a very large number of men from sickness. We gather that at the present time there are upwards of fifty invalids from Ashantee on the medical, and six on the surgical side of Haslar Hospital. Inspector-General Dr. Smart, C.B., is at present the chief medical officer of this large and very important establishment. It is to be hoped that the Queen's visit has been only deferred, and that Her Majesty will soon be enabled to take advantage of her residence at Osborne and the present fine weather to inspect the naval invalids in Haslar Hospital.

THE CARE OF LUNATICS.

AN attendant in the employment of Dr. Sabben in Northumberland House has just furnished a striking proof of the severity with which the law justly regards any neglect of watchfulness on the part of those who are entrusted with the care of the insane. The attendant in question, having on two or three occasions been careless in his charge of a patient, was specially warned not to leave the patient alone. He did leave the patient, and the patient jumped out of a window and almost lost his life in the adjoining river. Dr. Sabben dismissed him and refused to pay his wages, in accordance with Rule XI. of the establishment, which is sanctioned by the Lunacy Commissioners—that if a patient escapes through the neglect of an attendant, such attendant shall be liable to be fined, dismissed, or charged with the cost of recovering such patient. The attendant brought an action against Dr. Sabben for £9 14*s.* 2*d.* for wages in lieu of notice. But the Judge gave a verdict for the defendant, and severely characterised the negligence of the plaintiff. It is clear that if attendants were not powerfully impressed with the criminality of carelessness on their part, very serious consequences would follow.

ST. ANDREWS UNIVERSITY.

THE Professor of Greek at St. Andrews justifies, in an appeal to the students, the action of the Senatus in putting down the Kate Kennedy demonstration. Previous attempts at protocolling with Kate have, he says, been as unsafe as treating with King Koffee Kalcalli. He recommends private or even public theatricals, amateur acrobatism—anything, in short, rather than the yearly exhibition of provincial comedy and vulgar masquerade in which the students indulge, to the discredit of their *alma mater*, the prejudice of their studies, and the suspension of cordial relations between the professors and themselves.

WHOLESALE PROPAGATION OF SYPHILIS.

DR. BARDINET, of Limoges, brought before the Academy of Medicine of Paris, on the 14th inst., an account of a very sad calamity which has happened in the town of Brive in France. A midwife noticed on the middle finger of her right hand a sore which lasted a whole year. Some time after the appearance of this lesion she had secondary symptoms, and the same manifestations were observed in her husband. Thereupon the disease attacked the women whose labours she attended; the greater part of them were seized with generalised syphilis, which M. Bardinet was called upon to treat. Some husbands suffered also, the infants sickened of the same complaint, and several died. More than one hundred individuals are said to have been infected. Such are the salient facts of this painful tragedy, and we may add that the midwife, brought before a court of law, was sentenced to two years' imprisonment.

SENSATIONAL ACCIDENTS.

"LIFE would be tolerable but for its amusements," said Sir G. C. Lewis. Life would be safer were some of these better managed, say we. In spite of chemistry, ballet-girls are apt to take fire and be burnt to death. In spite of mechanical precautions, the heroes of the trapèze sustain heavy falls. One of these, a "Professor" Johnson, fell to the stage fifty feet below, and is not expected to live; while in two several menageries—one at Crewkerne and one at Dulverton—a lion tore a man almost to pieces. The stage has its Lord Chamberlain to guard the purity of its performances; ought not the music-hall and the menagerie to have some guarantee for their safety?

MR. J. LEIGH, Medical Officer of Health for Manchester, in a recent report on the sanitary condition of the town, states how in the parishes of Ardwick, Ancoats, and St. George more than one-half of all the deaths that take place are of children of the age of five years and under. The most urgent necessity of Manchester and that on which the largest number of lives depends is, in Mr. Leigh's opinion, the establishment of day nurseries and of small local hospitals for the reception of children suffering from infectious febrile diseases. The fact that 522 children died in the towns last year from scarlet fever alone is a sufficient confirmation of Mr. Leigh's forcible protest on the subject, and one which cannot be brought too prominently before the notice of the benevolent and wealthy of the inhabitants of Manchester. If such hospitals should be erected, the corporation will undertake to maintain them in a state of efficiency, while the various medical institutions in the town have promised to provide a medical staff, and generally aid in their administration and government.

DEPTFORD and its purlieus appear just now to be in a very unsatisfactory state. Mr. N. H. Pink, medical officer of health for this district, presented a special report on the subject to the District Board of Works some few days ago, which recited that since the beginning of the current year, 49 cases of typhoid had been reported to him as having occurred in the parishes of St. Paul and St. Nicholas, Deptford. After making the usual recommendations as to disinfection, removal of garbage, &c., Mr. Pink advised that a special sanitary committee should be formed to confer with him on the subject. The recommendation was unanimously adopted.

CAPTAIN BICKNELL, Chief Constable of Lincoln, in a report presented at the late Quarter Sessions, complained of the paucity of work done under the Adulteration Act, and that the objects of the Act are completely defeated by the length of time—a period of three months—which elapses between submitting a suspected sample of food for analysis and receiving the certificates of the analyst. In consequence of this representation, it was ordered that a letter be sent to the analyst, requesting him in future to send in his reports within a reasonable time.

ON behalf of the Local Government Board, Dr. Bridges and Mr. Longley had an interview last week with the St. Pancras guardians on the question of overcrowding in the workhouse. The inspectors stated that the building was overcrowded by at least 200 inmates. The dining-hall especially was in a most unsatisfactory state, being so overcrowded that the atmosphere in it, according to Mr. Longley, might almost be cut with a knife. The inspectors advised that temporary accommodation should be provided for any inmates in excess of the certified number. We pointed out some time ago to the guardians that the easiest way of getting out of their difficulty, pending the reconstruction and improvement of the Cleveland-street premises, was to farm out some of the paupers.

DR. GOLDIE, medical officer of health for Leeds, last week issued a report of the sanitary condition of the town for the preceding five weeks. An increased death-rate was observable during the period, and was mainly attributable to a fatal outbreak of scarlatina. Whooping-cough was also epidemic. Some of the courts and alleys of the town appear to be in a deplorable condition of wretchedness and misery, and utterly unfit for human habitation. Among the prejudices which Dr. Goldie has to encounter and overcome is the firmly rooted opposition to the processes of isolation and disinfection in the treatment of zymotic diseases.

THE Oxford correspondent of the *Pall Mall Gazette* states that the Oxford drainage question, which has been under discussion for the past quarter of a century, but was now thought to be in a fair way of settlement, is likely to be the subject of litigation, as the Littlemore Asylum Committee raise serious objections to the outfall being so near the public establishment, and have given notice of opposition to it. The Oxford Local Board, who have been going on with their scheme, have received notice from the Local Government Board of an inquiry into the subject on the 30th inst.

DR. WHITMORE, in his last monthly report of the health of the parish of Marylebone, states that amongst the diseases of the zymotic class measles continues to be the most prevalent and fatal in the district. The mortality from scarlatina, whooping-cough, and fevers was below the average. Phthisis and bronchitis caused a large number of deaths. Three deaths were ascribed to rupture of aneurismal tumours, and one to angina pectoris.

THE Navy Medical Department must indeed be in an unsatisfactory state, if we may judge from the observations of a correspondent, who says: "The end of the last five years' policy has brought the service to what it is—thirty short of its standard, and young men flocking out of it, and old officers only looking to the earliest day of retirement. Already in April, four young surgeons have sent in their resignations."

DR. HOOKER (the President) and the Fellows of the Royal Society held a brilliant *conversazione* on Wednesday evening at their new rooms in Burlington House. *Savants* and men of letters were numerously represented, and the show of scientific novelties and works of art were copious and *recherché*.

IN Australia, inoculation of cattle is now regularly practised for the prevention of pleuro-pneumonia. A circular, by Mr. Graham Mitchell, M.R.C.V.S., giving directions how to obtain inoculating lymph, and on the method of inoculating, has been published by the authority of the Government.

MR. CAVE, M.P., presided on Wednesday at the anniversary festival of the Earlswood Idiot Asylum. He drew a most encouraging picture of the success with which cases seemingly hopeless had been treated, and described the dexterity with which the patients acquired handicrafts and even intellectual knowledge. Thanks to the example of Earlswood, similar asylums, for which there is much need, are multiplying through the land.

IN London 1339 deaths were registered last week, including 45 from measles, 18 from scarlet fever, 7 from diphtheria, 46 from whooping-cough, 23 from different forms of fever, and 15 from diarrhœa. The deaths referred to diseases of the respiratory organs and phthisis, amounted to 460, showing a considerable decline on the returns of the previous weeks. Fifty-three deaths were ascribed to different forms of violence.

THE Hospital Sunday and Hospital Saturday collections in Liverpool, amounting to £10,800, have now been distributed to the various medical institutions in the town. The Royal Infirmary received £3240. The other charities, thirteen in number, received smaller grants, the lowest being £54.

THE President of the Local Government Board recently stated, in answer to a memorial from Northallerton praying for an amendment of the Adulteration Act, that many such communications had been received by him, and that a Parliamentary investigation of the subject is imminent.

THE adjourned Annual Court of Governors of King's College Hospital will be held at King's College on Saturday, May 2nd, at 3 P.M., for the consideration of the report made by Lords Hatherley and Selborne on the nursing arrangements.

THE distribution of prizes in the Faculty of Medicine, University College, will take place on Wednesday, May 6th, on which occasion Professor Quain will preside.

ON the recommendation of the Local Government Board Commissioners, a cholera hospital will probably be erected at Bromborough-on-the-Mersey.

Correspondence.

"Audi alteram partem."

CONFERENCE OF MEDICAL OFFICERS OF HEALTH.

To the Editor of THE LANCET.

SIR,—As the secretary of the Conference, the report of which you have criticised in your leader of Saturday last (11th inst.), I shall be obliged if you will allow me to make a few remarks on one or two points on which you appear to have somewhat misconceived the object of the resolutions adopted by the Conference.

You characterise as "extraordinary principles of centralisation and autocracy" the suggestion of one of the resolutions that "the powers of the Local Government Board generally over sanitary authorities should be enlarged, and particularly with reference to the combination of authorities and the provision of places for the reception of cases of infectious disease." Such an objection is so perfectly novel a one that I am at a loss to know exactly how to reply to it. From one end to the other of the evidence laid before the Royal Sanitary Commission the cry is for more compulsion on local authorities, and the suggestion of the most competent witnesses was for a strong central board. Whether the Local Government Board as at present constituted is exactly the ideal of a strong central body which those wit-

nesses contemplated is altogether a different issue, upon which I do not pronounce any opinion; but to advocate, as you appear to do, "certain kinds of compulsion hitherto resting with the courts of law" as a substitute for what the Conference proposed is to assume that courts of law possess powers which, so far as I am aware, do not exist. At least I know of no Act of Parliament which would authorise any court of law to compel two or more sanitary authorities to combine for any object, and certainly not to provide places for the reception of infectious disease.

Again, you object to the suggestions of the Conference on the subject of infectious disease—(1) to "the enforcement of a report to the sanitary authority of every case of such disease immediately on its occurrence," as giving to the authority "a power of intermeddling in any house and with every family, unconditionally, in which infectious disease shall occur"; (2) to "the compulsory isolation of all cases in which, in the opinion of the medical officer of health, or any medical practitioner acting in his behalf, adequate provision cannot be made by the friends for this purpose"; (3) to "the enforcement of penalties on those who, by the neglect of such practicable precautions for arresting the disease as are recommended to them by the medical officer of health, or any medical practitioner acting in his behalf, are the means of either directly or indirectly spreading it." The commentary on this resolution, which was drawn up by the committee which framed the report, expresses fully the reason why the resolution was passed.

Allow me, in conclusion, to observe that the report of the Conference has not yet been printed for circulation, the only copies that have been issued having been headed "Proof copy," and circulated amongst those who attended the Conference for the purpose of criticism by them before publication.

I am, Sir, your obedient servant,

Gloucester, April 13th, 1874. FRANCIS T. BOND, M.D.

*** The copy of the report sent to us was sent in ordinary course without any accompanying letter, and no note upon the report to intimate that it was not in a state to be dealt with publicly. The printed words "Proof copy" were remarked, but as it is usual for us to receive early impressions of reports, it never occurred to us that the sender had favoured us with a copy of the report under consideration before it had passed under the eyes of the members of the Conference.—ED. L.

ST. GEORGE'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—In answer to your letter of the 16th inst., I beg to inform you that on the 25th March last a memorial presented to the Weekly Board, signed by sixty-one gentlemen—forty-three having no connexion with nor contributing to the funds of the institution—contained the following paragraph:—

"Owing to the numbers flocking to receive this gratuitous medical relief, and to the limited time at the disposal of the medical officers, it was found impossible that each case could be properly examined into and treated in the out-patient department of the hospital. Something has lately been done towards remedying this. Only a certain number of new cases are now seen every morning; but this does not touch the root of the evil, while it superadds some new inconveniences."

The Weekly Board thought it due to the staff of the hospital having the charge of the out-patients that they should have an opportunity of considering the allegations as to the mode in which they treated the patients committed to their charge, and the memorial was referred to them.

In answer, the following report was made to the Weekly Board:—

"To the Chairman of the Weekly Board.

"SIR,—We beg leave to report that we have considered the memorial referred to us by the resolution of the Weekly Board of the 8th inst. The part of the memorial to which we are called upon to reply seems to be limited to the following passage:—'Owing to the members flocking to receive this gratuitous medical relief, and to the limited time at the disposal of the medical officers, it was found impossible that each case could be properly examined into and treated in the out-patient department of the hospital. Something has lately been done towards remedying this. Only a certain number of new cases are now seen every morning; but this does not touch the root of the evil, while it superadds some new inconveniences.' With regard to this passage we have to observe, in the first place, that we have no personal knowledge of the state of the out-patient departments prior to the time at which the number of out-patients seen by each officer was limited. That limitation, instead of being something lately done, has been the law of the hospital for more than twenty-two years, and had its origin in a resolution of the Weekly Board passed on the 14th Jan., 1852. Within our own recollection and experience there has never been any overcrowding of the out-patient departments. During the first thirteen weeks of the present year, for example, the average number of new out-patients has been 277 weekly, of which number 88 (on an average) have been casualties or surgery patients, leaving only 193 as out-patients proper. The 193 patients are divided between nine medical officers—to wit, the two assistant-physicians, the two assistant-surgeons, the ophthalmic surgeon, the obstetric physician, the aural surgeon, the orthopædic surgeon, and the dental surgeon. These nine officers pay sixteen visits to the hospital in each week, so that they each see an average of 22 fresh out-patients weekly, or an average of 12 on each visit. If we extend the same calculation to old cases, we find that the average number in attendance is 1101 weekly, from which an average of 181 casualties must be deducted. The remaining 920 give an average of 102 old cases weekly to each officer, or of 58 to each visit. We beg leave to assure the Weekly Board that this number is neither an undue tax upon our powers nor more than we require for the purposes of instructing students. We make it a rule personally and carefully to examine and prescribe for every case, and we never have occasion to devolve any of our proper responsibilities upon pupils or unqualified assistants, although the assistant-physicians and assistant-surgeons have the advantage of the aid of qualified officers recognised by the Board. The qualified officers make a preliminary examination of the applicants, and select for admission those who most urgently require treatment, so that as far as possible the suggestion of the memorialists to exclude trivial ailments is already carried into effect.

"With regard to the 'root of the evil,' and to the inconveniences said to be superadded thereto, we can hardly speak without some precise information as to the meaning of the memorialists. We do not know what the 'evil' is, or what is its 'root,' and the nature of the alleged inconveniences has not been specified. We ourselves are not aware of their existence.

(Signed)

"JAMES ROUSE, Chairman, R. BRUDENELL CARTER,
THOMAS WHIPHAM, THOMAS P. PICK,
JOHN CAVAFY, W. B. DALBY,
R. J. LEE, CHARLES VASEY."
B. E. BRODHURST,

Among the signatures to the memorial were the names of Sir William Fergusson, Sir James Paget, and Sir William Gull. The Weekly Board, feeling the weight the opinion of these gentlemen ought to have with the public, wrote to them begging to be informed on what personal experience of the mode of treating the out-patients of St. George's Hospital was founded the opinion expressed in the memorial. The answers of these gentlemen are forwarded.

I am, Sir, your obedient servant,

CHARLES L. TODD, Secretary.

St. George's Hospital, April 22nd, 1874.

[COPIES.]

1, Harewood-place, Hanover-square, W., April 11th, 1874.

SIR,—In reply to your letter received this morning, I beg you to be so good as to inform the Weekly Board of St. George's Hospital that the "paragraph in a memorial" quoted by you is not "founded on" my "personal experience."

I am, Sir, obediently yours,

Charles L. Todd, Esq. (Signed) JAMES PAGET.

16, George-street, Hanover-square, W.,
April 11th, 1874.

SIR,—In answer to your note regarding the presence of my name on a list of subscribers to an address recently presented to the Board of Management of St. George's Hospital on the subject of out-patient relief and dispensaries, I beg to state that I appended it on a general professional experience of nearly half a century. In doing so I was gratified to think that these matters were thus about to be brought under the notice of such an influential body of hospital governors.

I have the honour to be, yours faithfully,
(Signed) WILLIAM FERGUSSON.

To the Secretary of St. George's Hospital.

74, Brook-street, London, April 21st, 1874.

SIR,—In reply to your letter of the 8th instant, which was sent during my absence on the Continent, I beg to state, for the information of your Weekly Board, that on receiving your letter, the tenor of which seemed to imply a grievance at my having signed the memorial in question, I took occasion carefully to peruse the document again, and I desire to say that, in putting my signature to it, I had no intention to endorse any reflection upon the management of St. George's Hospital in particular. I regarded the memorial to the Board of Management of your hospital as of a general kind and applicable to all the large London hospitals. I have lived thirteen years in this district, and although I have not any direct knowledge founded on personal observation of the management of the out-patients' department of St. George's Hospital in particular, I have, from general information, reason to believe that it differs in no essential from that of the other large London hospitals.

Your House Committee will know, without my informing them, that numbers do flock to receive gratuitous medical advice, and that it is impossible to give each case what would be considered a satisfactory examination. My experience on this matter is of the largest kind, as for a period of nearly fifteen years I had to do with the out-patient department of a large hospital as student and assistant-physician.

If St. George's Hospital does in fact follow any better method of dealing with out-patients than exists at other hospitals, I shall, on being informed of it, feel it my duty to withdraw my signature from the memorial. But if the arrangements at St. George's are, as I have yet reason to believe, as open to improvement as the memorial suggests, I must ask the Committee to give that weight to my signature which my large experience on this particular matter would warrant.

I am, Sir, your obedient servant,
(Signed) WILLIAM GULL.

To Charles Todd, Esq., Secretary,
St. George's Hospital.

THE HOSPITAL FOR WOMEN.

To the Editor of THE LANCET.

SIR,—It is at all times difficult to estimate motives, be they good or bad, and I have no desire to attempt this in regard to the conduct of Dr. Protheroe Smith towards his late colleagues at the Hospital for Women. He may, as he says, have been actuated by a desire to promote the welfare of a charity in which he has so long taken a deep interest; but it is obvious, I think, to anyone, that if such was his wish, he has singularly erred in judgment, for the present position of the charity can hardly be gratifying to its well-wishers; nor, I think, does his recent letter in your last issue exhibit any greater wisdom, for I fancy it will puzzle most people to discover in what respect his alleged "statement of facts" proves his desire "to do what is right towards his colleagues and the profession."

I am not, however, now concerned either with Dr. Protheroe Smith's motives or wishes, but I am bound to take exception to his assumed "facts," because, in the first place, they are not facts at all, and, secondly, because his statements distinctly misrepresent, unintentionally no doubt, the real truth of the matter.

With reference to the question of the new bye-law, which threatened illegally to terminate our period of office in less than a fortnight from the time the notice was served upon us, I need say nothing; because, whether or not Dr. Protheroe Smith knew of the proposed alteration—and opinions may probably differ on this point—he at least, as you very properly point out, must be held responsible for the action of the committee so long as he remained a member of it.

In regard to Dr. Smith's statement that we "rejected the rules of the customary Medical Committee," I must give this an emphatic contradiction, for I know of no rules that were so rejected; and I entirely deny that we "took upon ourselves the power of an inquisition to make judicial inquiry into the private character of the matron." It is also untrue that we requested the house-physician to give a written statement of his reasons for resigning. The truth of what I say is seen in the resolution of the medical staff which is now before me. It is as follows:—"That, with a view to the greater efficiency of the hospital, the Medical Committee request Dr. Gairdner to state in writing any defects in its internal management which he considers require to be remedied, and which he has mentioned to several of the medical staff."

The "private character of the matron" had nothing to do with our inquiry, which was simply into the question of the nursing, which the whole staff, except Dr. Protheroe Smith, felt was scandalously bad, and which, in the interests of the hospital, we desired to improve. Dr. Smith chooses to call this an arraignment of the matron and nurses, and considers it "beyond and beneath" our province as physicians and surgeons—a truly extraordinary statement, as if good nursing were not absolutely essential in the treatment of the sick.

He further states that he regarded our inquiry as "a usurpation of the rights of the general committee." Yet he allows that our "complaints" should have been carried to the committee, though how they could fitly be taken there without previous deliberation and proper investigation by those who were to make the charges I am unable to comprehend.

It is, indeed, surprising that Dr. Smith should so recklessly misrepresent facts as he has done in the three instances I have quoted, and that, too, from the laudable desire to do what is right to his late colleagues! I am sure they desire nothing better than that the real facts should be known, and we unhesitatingly appeal to the judgment of the profession and the public to justify the extreme step which we felt it our duty to take.

Your obedient servant,
George-street, Hanover-square, W. ALFRED MEADOWS.

To the Editor of THE LANCET.

SIR,—Now that the medical staff, except Dr. Protheroe Smith, of the Hospital for Women has resigned, may I venture to ask if there ever has existed any real necessity for such an institution, and whether, considering the number of general hospitals in existence, London would be any the worse off for its being closed altogether?

Your obedient servant,
April 21st, 1874. R. H. L.

EPIDEMIOLOGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—Your last impression contains an abstract of the paper I read at the Epidemiological Society on the 8th inst., and of the discussion which followed. The former represents my views fairly, except in the following passage, with reference to the relations between sporadic cases of malignant cholera which arise without importation, and those met with in an epidemic. "Until it can be shown what essential difference separates these cases from those met with in an epidemic, no theory as to the cause of the latter which does not also account for the former can be considered as scientifically correct or as entitled to confidence."

To convey my meaning, the passage should have run thus:—"Unless it can be shown that an essential difference separates these cases," &c. I believe from what I have seen of these sporadic malignant cases, and from consulting the records of the experience of others, that they are identical in their nature with those met with in an epidemic. Should an essential difference be established between them here-

after, I for one will not hesitate to change my opinions, but at present the weight of the evidence is altogether against this view.

I beg you will insert this explanation in your next issue.

Yours truly,

ROBERT LAWSON.

Lansdowne-road, Notting-hill, April 20th, 1874.

THE NURSING AT KING'S COLLEGE HOSPITAL.

WE have received from Dr. W. S. Playfair and the Secretary of King's College Hospital the subjoined correspondence for publication.

To the Editor of THE LANCET.

SIR,—The following correspondence was forwarded to the *British Medical Journal* on the 14th instant, but has not been published in that journal.—I am, Sir, yours &c.,

April 20th, 1874. J. W. WALDRON.

King's College Hospital, W.C.,
April 11th, 1874.

DEAR SIR,—Having heard from a reliable source that you are the author of the article, "The Nursing at King's College Hospital," published in the *British Medical Journal* of the 14th February last, and containing the following words—viz.: "If, as is reported, the Secretary has, ever since his appointment, shown a bitter animosity against the ladies who conduct the nursing, it is not difficult to understand that there may be much truth in the allegation that the reports of what takes place have been so coloured as to give the members of the Committee an erroneous and prejudiced impression," I shall be glad to receive your distinct assurance that my information is incorrect. Failing this, I must call upon you to forward to me such a written apology as may render other action on my part unnecessary.

I am, dear Sir, yours faithfully,

(Signed) J. W. WALDRON.

To W. S. Playfair, Esq., M.D.,
5, Curzon-street, Mayfair.

5, Curzon-street, Mayfair, W.,
April 13th, 1874.

DEAR SIR,—I have received your letter of the 11th inst., and, in reply, have no objection to acknowledge the authorship of the article you quote. I had not the least intention in the paragraph quoted by you to imply that you gave any intentional colouring to your reports to the Committee, and if you think that impression is conveyed I express my unqualified regret.—I am, faithfully yours,

(Signed) W. S. PLAYFAIR.

J. W. Waldron, Esq.

To the Committee of Management of King's College Hospital.

5, Curzon-street, Mayfair, W., April 16th, 1874.

GENTLEMEN,—On the 11th inst. I received from your secretary a letter, in which he informed me that he had heard, "from a reliable source," that I was the author of a leading article on "The Nurses at King's College Hospital," which appeared in the *British Medical Journal* of Feb. 14th. As no one but the editor of the journal was cognisant of the authorship of that article, I naturally wrote to ask him if he had been Mr. Waldron's informant. He replied as follows:—"Of course I have not, nor shall I, give up the name of the author of the article. I mentioned it confidentially to Sir William Fergusson, but I should think it impossible that he should have taken the information so given to the secretary." He further strongly advised me to decline to answer the question put to me, and to refer the secretary for any information he required to the solicitor of the journal. On re-perusing the article, however, I could not but admit that in the hurry of composition I had referred personally to the secretary in terms that were obviously susceptible of a construction that I had no intention of conveying. I therefore thought that the more honourable and manly course would be for me at once to assume the responsibility of what I had written, and to express my great regret that my careless diction should have been capable of conveying an impression prejudicial to his character. Such an apology seemed to me only what was due from one gentleman to another, and I have made it unreservedly.

As the secretary has informed me that he proposes to lay the correspondence that has passed between us before you, I think it right to state that the article in question was written in perfect good faith, in the sincere hope that it might aid in averting what I believe, and still believe, would be a calamity to the hospital, and that I see nothing in its general tenor of which I need be ashamed.

As my colleague, Sir Wm. Fergusson, is also one of your body, I think I ought to mention to you that, having the verbal assurance as well as the written statement of the editor of the *British Medical Journal*, that he communicated the authorship of the article to him confidentially in his capacity of president of the British Medical Association (of which the journal is the official organ), it is my intention to lay the facts of the case as regards that gentleman before the Council of the Association over which he presides.

I am, Gentlemen, your obedient servant,

W. S. PLAYFAIR.

THE DISCUSSION ON CANCER.

To the Editor of THE LANCET.

SIR,—As I was prevented by the rules of the debate at the Pathological Society from replying to Dr. Broadbent, who misapprehended the nature of my remarks, perhaps you will allow me very briefly to correct the misapprehension. The line of thought which I introduced was this:—Cancer is local and constitutional; *local* inasmuch as it is formed out of the tissue elements of the part in which it occurs; *constitutional* in that it arises *in connexion with* the all-pervading lymphatic glandular system. I did not say, as Dr. Broadbent supposed, that cancer was made out of lymphatic tissue, but that it was made out of the tissue elements generally of the part in which it primarily occurred (or some neighbouring part), on account of the functional failure of the lymphatic glandular system of the part to take up and reconvert those elements into blood which were no longer of use in the part, but still capable of growth and life. From the necessity for condensation I may have seemed, as Dr. Broadbent thought, to have contradicted myself once or twice, but I did not really do so, although I may have expressed what I meant to say without sufficient precision.

I am, Sir, yours, &c.,

April 22nd, 1874. WALTER RIVINGTON.

THE CLINICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—I should feel obliged if you would have the goodness to correct an error in your annotation headed "The Clinical Society" in THE LANCET of April 18th. It is stated at page 563 that "Mr. Teevan concluded the evening by reading certain notes of cases of sterility after abortion (*sic*), and before doing so adopted the unusual proceeding of handing 'confidentially' to the President the names of the operators and patients referred to in the cases quoted." If, Sir, you will kindly refer to page 500 of THE LANCET for April 4th you will see the following correct announcement: "Mr. Teevan: Notes of Cases of Sterility after *Lithotomy*," and *not* after *abortion*, as stated in your annotation. As I did not see what end would be served by reading out to the Society the names of the patients, hospitals, and operators in the cases referred to, I handed a list of the same to the President, and, when doing so, I most distinctly stated to the members that if any gentleman would wish to investigate the cases further than I had done, I should be most happy to furnish him with the list for the prosecution of his inquiry.

I am, Sir, your obedient servant,

Portman-square, April 18th, 1874. W. F. TEEVAN.

*** We regret the error pointed out by Mr. Teevan, and lose no time in giving publicity to the correction.—ED. L.

MISS MARY JANE WALKER has bequeathed £1000 to the Sisterhood and Home for Incurables in connexion with St. Margaret's Church, Princes-road, Liverpool.

BOOKS ETC. RECEIVED.

Mr. Erichsen on Hospitalism, &c.
Mr. R. Johnston: Competitive Geography.
Mr. W. H. Jenkins: The Family Medical Index.
Mr. Wilkins: The Georgics of Virgil.
Mr. Lloyd: Poems in Latin Verse.
Mr. Morris: Greek Lessons.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at Meetings of the Court of Examiners on Monday and Tuesday last:—

Bates, William, L.S.A., Birmingham.
Bellamy, Charles P., Alfred-place, Bedford-square.
Bingham, Samuel, Kirton Lindsey, Lincolnshire.
Blake, George F., Birmingham.
Brown, George, L.S.A., Callington, Cornwall.
Casson, Harwood, Hull.
Cooke, Edward M., Alverstoke, Hants.
Crossman, John, L.S.A., Bideford, North Devon.
Etheridge, George D., Torquay, Devon.
French, Alexander M., L.S.A., Falmouth-road.
Fry, John F., L.R.C.P. Lond., Taunton, Somerset.
Geraty, Thomas, Nottingham.
Granger, F. Marsden, Leeds.
Griffiths, John, Llandyssul, Cardiganshire.
Hawkins, William, Dorchester.
James, Henry, L.R.C.P. Edin., Ridgeway, Southampton.
Kyngdon, Frederick H., Croydon, Surrey.
Lee, Julian A., L.R.C.P. Edin., Toronto, Canada.
Lightoller, Harry M., Chorley, Lancashire.
Llewellyn, Rees R., L.S.A., Whitechapel-road.
Morley, Thomas S., Barton-on-Humber.
Nash, William G., L.S.A., Farnham, Surrey.
Newington, Alexander S. L., Ticehurst, Sussex.
Nunez, Daniel, L.R.C.P. Lond, Costa Rica.
Perkins, John, Notting-hill.
Rendall, John, L.S.A., Maiden Newton, Dorsetshire.
Ring, John, M.D., St. John's-wood.
Ruddock, John B., L.S.A., Epping, Essex.
Rugg, Harold, Grove-road, St. John's-wood.
Simmonds, Wm. A., L.R.C.P. Lond., Overcliff, Gravesend.
Symons, John G. R., Saltash, Cornwall.
Tipple, Edwin, L.R.C.P. Edin., Erith, Kent.
Weatherley, Lionel A., Portishead, Somerset.
Williams, Philip Henry, Monmouth, South Wales.
Williamson, George E., North Shields.

[In the list of gentlemen who passed the Primary Examination on the 7th and 8th inst., published on the 11th inst., for "L. E. H. Shuttleworth" read L. E. Kay-Shuttleworth.]

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on April 16th:—

Butter, George Bleeck, Warminster.
Dalton, Charles Bernard, Whitehaven.
Dyson, William, Thurgoland, near Sheffield.
Harrison, Charles Edward, Upper Norwood.
Taylor, Joseph, Hathersage, near Sheffield.

MR. ROBERT KERSWILL, M.R.C.S. Eng., of St. Germans, is a candidate for the vacant coronership of Cornwall.

DR. WOODWARD, public vaccinator to Worcester Union, has recently (for the second time) received a Government award for meritorious vaccination, to the amount of £34 10s.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 14th inst., Sir Edward Hilditch, Inspector-General, in the chair, the sum of £60 was distributed among the various claimants.

ELEPHANTIASIS GRÆCORUM.—Dr. Leisrink relates a case of this kind in the *Deutsche Zeit*, vol. iv., in which he tied the femoral artery just below Poupart's ligament. The lady, fifty-one years old, had suffered twenty-five years before from repeated attacks of erysipelas in the right leg, and the latter measured twenty inches round the calf, whilst the sound leg measured only seven. She was considerably weakened by oozing of serum, and four days after the operation the size was reduced to twelve inches. It rose a little afterwards, and although the patient was not actually cured, the disease was certainly arrested and modified. Compression of the artery has been tried in this and other countries with varying success, but amputation has almost always proved fatal.

Medical Appointments.

AITKEN, J., M.B., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Parish of Kirkmichael, Dumfriesshire, vice Stitt, deceased.

BRISCOE, W. T., M.B., C.M., has been appointed Medical Officer of Health for the Chippenham Urban Sanitary District; £10 for six months; acreage 248; population 6273.

CHAMBERS, R., L.K.Q.C.P.I., L.R.C.S.Ed., has been appointed Assistant Medical Officer for the Inverness District Lunatic Asylum, vice Haggart, resigned.

CURRAN, J. W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer of Health for the Mansfield-Woodhouse Urban Sanitary District: £5 5s. per annum; acreage 12,372; population 2500.

EVANS, A. G., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Blakesley District of the Towcester Union for six months.

FENDICK, R. G., M.R.C.S.E., has been appointed Medical Officer for the 3rd District of the Clifton Union.

GRIFFITH, R. P., M.R.C.S.E., L.K.Q.C.P.I., has been appointed an Assistant Civil Surgeon in the Island of Mauritius.

KEMP, B., M.R.C.S.E., has been appointed Medical Officer of Health for the Horbury Urban Sanitary District: £20 per annum; acreage 1279; population 4000.

KINSEY, R. H., M.R.C.S.E., has been appointed a Surgeon to the Bedford General Infirmary, vice Sharpin, resigned.

LAWDER, E. J., L.R.C.S.I., L.M., has been appointed Assistant-Surgeon and Resident Registrar to the County Down Infirmary, Downpatrick, vice Finny, deceased.

LEET, R. A., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Waddingham District of the Caistor Union, Lincolnshire, vice Aston, resigned.

MAC GILL, G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Workhouse and the Blatchinworth and Calderbrook District of the Rochdale Union, vice Lister, deceased.

PATTINSON, H. B., M.R.C.S.E., has been appointed Medical Officer for the Peters-Marland District of the Torrington Union, vice Rouse, deceased.

POLSON, J., M.D., has been appointed Medical Officer and Public Vaccinator for the Parish of Kirkden, Forfarshire, vice Todd, deceased.

POTTER, J., M.D., L.R.C.S.I., has been appointed Medical Officer to the Royal Irish Constabulary, Kilkenny, vice James, deceased.

RANDOLPH, C., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Wellington Rural Sanitary District and the Wivelscombe Urban Sanitary District: £20 per annum and £10 per annum respectively.

SHARPIN, H. W., F.R.C.S.E., has been appointed Consulting Surgeon to the Bedford General Infirmary, on resigning as Surgeon.

SHEARD, W. F., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Parish of Putney in the Wandsworth and Clapham Union; also Surgeon to the A.O. Foresters, Odd Fellows, and Independent Friendly Societies, vice Clarke, resigned.

STEELE, Mr. F. (Assistant House-Surgeon to the Liverpool Eastern Dispensary), has been appointed Resident Medical Officer to the Bloomsbury Dispensary.

TURNELL, A. P., M.R.C.S.E., has been appointed House-Surgeon to the East Suffolk Hospital, Ipswich, vice De la Motte.

Births, Marriages, and Deaths.

BIRTHS.

ASHTON.—On the 24th ult., at Allahabad, the wife of Staff Surgeon-Major W. Ashton, Army Medical Department, of a daughter.

LYNES.—On the 19th inst., at Priory-row, Coventry, the wife of Edward Lynes, M.D., of a son.

TYLECOTE.—On the 21st inst., at Sandon, Staffordshire, the wife of J. H. Tylecote, M.D., prematurely of a still-born son.

WILSON.—On the 17th inst., at Alton, Hants, the wife of Thomas Wilson, L.R.C.P.Ed., of a daughter.

MARRIAGES.

JACQUES—RYE.—On the 8th inst., at St. Mark's, Middleton-square, Francis Hume Spryc Jacques, Esq., of Fairseat, Wrotham, Kent (eldest son of Francis Jacques, Esq., of the Manor House, Berrow, Somersetshire), to Amelia Beata, eldest daughter of Arthur Brisley Rye, F.R.C.S., of the Grotto, Leckhampton, near Cheltenham.

PERIGAL—BECK.—On the 16th inst., at the British Legation, Rome, Arthur Perigal, jun., M.D., of Wheatley, Oxon (son of Arthur Perigal, Esq., of Edinburgh), to Helena Jane, only daughter of the late F. J. Beck, Esq., of Norbury Villa, Blackheath, Kent.

WOOD—BRADFORD.—On the 16th inst., at Dundalk, John Wood, Surgeon R.N. (only son of the late Thomas Wood, Esq., of Enniskillen), to Eleanor, daughter of the late Thos. Bradford, Esq., of Carnbeg.

DEATHS.

ALLCOCK.—On the 11th inst., C. Allcock, L.R.C.P.Ed., of South-road, Waterloo, Liverpool, aged 34.

ARNOLD.—On the 20th inst., at Grove Cottage, Woolston, Southampton, Richard Arnold, M.R.C.S.E., late Surgeon-Major H.M.'s Indian Medical Service, aged 40.

BARKER.—On the 20th inst., at Barrow House, near Bury St. Edmunds, William Searle Barker, Surgeon, aged 60.

BARNES.—On the 15th inst., F. W. Barnes, M.R.C.S.E., of Great Crosby, Lancashire.

CARSON.—On the 16th inst., at Grove Lodge, Merchiston, Wm. Carson, M.D., Deputy Inspector-General of Hospitals.

FEREDAY.—On the 14th inst., S. D. Fereday, F.R.C.S.E., of Long Leys, Water-Orton, Warwickshire.

KERBEY.—On the 19th inst., at Weobley, Lilian, infant daughter of Wm. Holman Kerbey.

Notes, Short Comments, and Answers to Correspondents.

UNIVERSITY CANDIDATES FOR THE SCIENTIFIC CORPS OF THE ARMY.

THE Committee appointed by the Secretary of War to consider whether it might not be expedient to admit a certain number of University men to the Scientific Corps, as they are admitted under Article I. of the Royal Warrant of October, 1871, to the other branches of the service, having made its Report, with minutes of evidence, &c., the document has been presented to Parliament. The Royal Engineers and Artillery are favourite branches of the army service, and sons of medical men, in common with those of other members of the professional classes, are occasionally candidates for admission to the Royal Military Academy. The Committee points out that the conditions requisite for the admission of officers to the Line are different from those which should be required for admission to the Artillery. Owing to the extension and rapid advance which Artillery has made of late, the Committee consider that far more technical knowledge is now required in the Royal Artillery than formerly; and the evidence of witnesses connected with the Universities shows that such knowledge cannot be secured by a University education as at present conducted, and that a knowledge of mathematics (an indispensable qualification) is not insured by the possession of a degree. After an impartial consideration of the whole matter, the Committee is unable to arrive at the conclusion that the proposal to admit University men to the Scientific Corps without a previous residence at the Royal Military Academy is one which they can recommend to the Secretary of State.

Dr. Love (Wolverhampton) is thanked for his courtesy.

TREATMENT OF POST-PARTUM HÆMORRHAGE.

To the Editor of THE LANCET.

SIR,—I wish, with your permission, to place on record the following cases treated in the way so rightly insisted upon by Dr. Barnes.

CASE 1.—Mrs. D——, multipara; labour natural; profuse hæmorrhage three hours afterwards. Ergot was given, ice internally, and iced-water injections were used without any benefit by the medical men in attendance. Solution of perchloride of iron (1 to 4) was then injected into the uterus with Higginson's syringe. Hæmorrhage immediately and completely stopped. Recovery good. The prostration was so great that the utmost anxiety as to her recovery was felt by us all. Dr. Barnes was sent for; but when he arrived the injection had already been used. Having verified the fact that there was no more hæmorrhage, he simply advised "rest." It can scarcely be doubted that the lady's life was saved by the styptic injection.

CASE 2.—Mrs. J——, multipara; partial placenta prævia with arm presentation. After detaching the placenta as far as possible, I turned and delivered a living child. The uterus contracted well at the time; but some hours after she was found to be fainting and almost pulseless. The hæmorrhage was most profuse. Pressure and ice internally were used with no effect. Solution of perchloride of iron, used as in the first case, completely stopped the hæmorrhage, and there was no return of it. Recovery good.

CASE 3.—Mrs. L——, multipara; labour natural; uterus flabby, and did not contract well. Ergot was given; but after an hour profuse hæmorrhage set in. Ice internally and pressure tried for two hours without success. Solution of iron was immediately successful. Recovery good.

CASE 4.—Mrs. S——, multipara; labour natural. After three hours, profuse hæmorrhage set in. Pressure and cold water were tried for two hours; but as soon as discontinued hæmorrhage returned. Solution of iron injected, as in the other cases, completely stopped it. Recovery good.

Remarks.—These cases, I submit, speak for themselves. In all of them there was the greatest danger. Other treatment had been tried and persisted in, but without any benefit, before the styptic injection was used, and in all the cases the results were most marked. I have used the injection in all ten times, and have seen no ill-effects from its use; on the contrary, I firmly believe that it has been the means of saving life in each case, and that we have in the styptic a safe and reliable agent.

I remain, Sir, your obedient servant,
MEREDITH TOWNSEND.

Upper Phillimore-place, Kensington, April 13th, 1874.

To the Editor of THE LANCET.

SIR,—In the *Practitioner* of the present month I have just noticed an abstract of an article by Dr. Snow Beck, which appeared in the *Obstetrical Journal* of February last, "On the Treatment of Uterine Hæmorrhage during the Puerperal Period," referring to a practice he has for a short time adopted and employed on six or eight occasions of injecting ordinary vinegar-and-water into the uterus in cases of post-partum hæmorrhage. Many practitioners, I believe, still consider the perchloride of iron a dangerous remedy, although properly diluted. I have used it with the best results; yet I wish to add my testimony to that of Dr. Beck as to the safety and efficacy of the vinegar-and-water injection, having used it since the autumn of 1865, when I first saw it employed by Mr. Howell, of Wandsworth, who injected on that occasion a mixture of one part vinegar to three of water, and advocated its use as being safer than the perchloride, and always readily obtainable on an emergency. It certainly produces efficient contraction, and probably the risk of evil consequences, in the event of its passing into the general circulation, is less.

I am, Sir, yours faithfully,
Islip, Oxfordshire, April 13th, 1874. EDW. SUTCLIFF, M.D.

MEASLES AT ADVANCED AGES.

WE should be glad to be informed of any cases of unmistakable measles at advanced ages, with such an account of the symptoms as will suffice to verify the diagnosis, including observations of temperature.

Abercorn (Dublin) should avoid advertising quacks, and consult a respectable surgeon in his own neighbourhood.

HAMBURG.

THE Hamburg Government has published the Report prepared for it by the Medical Bureau, from which it appears that, notwithstanding the summer heat, the health of the population during 1872 was very satisfactory. Cholera was conspicuous by its absence. Small-pox, so virulent in 1871, had lost its epidemic character, and became almost extinct towards the end of March. Compulsory vaccination was introduced not without difficulty, and the opposition it encountered during its passage through the local Legislature appears to have entirely ceased. The somewhat questionable application of the law to the large number of emigrants passing through Hamburg was attended with great difficulty and expense, and was consequently abandoned as soon as the epidemic ceased. The prohibition of adulteration, and the severe penalties made against it by the German penal code, proved of much service in enabling the authorities to confiscate adulterated or improper articles of food, and several cases occurred in which large quantities of American bacon were destroyed on being found affected by trichinæ. The births in the State of Hamburg in 1872 were 6985 males and 6431 females—total, 13416. Of these, 608, or 5 per cent., were still-born; and not less than 1255, or 10 per cent., were illegitimate. The deaths registered during the year were 9044, or 267 per 10,000 of the population, which at the date of the last census, December, 1871, numbered 338,974. Nearly 30 per cent. of the deaths occurred among children in their first year, a large number of whom were illegitimate; while about 25 per cent. of the whole are described as being to a great extent due to causes capable of removal under a better hygiene.

Mr. Crossley.—We have no means of ascertaining. Our correspondent had better advertise in the Australian papers.

Dr. McLeod's communication shall shortly be published.

DAVID LIVINGSTONE.

We now have laid him in the voiceless grave.
Could shades oblivious gather round his name?
Could voice of wail that comes from Afric's slave
E'er cease to tell the great deliverer came?
O Scotia! do him honour, 'tis thy claim;
Proud of thy trust—few can be greater proud—
Some lofty tribute raise to tell his fame.
In life, though he was much with hardships bowed,
In death O let his name be seen and sung aloud!

Full many a hero falls in thickest fight;
Full many a genius dies when all is won;
But he expired before he saw the night
Of slavery close! his work left half undone.
Ye sons of bondage! mourn that he is gone!
Go weep upon his banks and swell the Nile,
And tell his floods of David Livingstone!
He saw his toils thro' many a league and mile,
He saw his kindly face upon the negro smile.

Ye sons of slavery! by the palm-trees sigh,
And in such sighs reveal the doleful tale;
The balmy breezes from their leaves should fly,
And bear dark tidings far thro' every vale;
Sahara's sands should hear the desert gale
Weep as it blows, and drop the tearful dew;
The swollen Niger should with grief grow pale,
And sing a funeral dirge in ocean's view,
And Lake Nyanza change her blue to leaden hue.

The negro 'neath the palm-trees' scanty shade
For many a year for him will tune the reed;
The spot wherein his generous heart is laid
Will claim a tear when slavery's victims bleed;
They'll call on him who succoured in their need,
And cry, "Arise, our great Deliverer rise!
Wake from thy sleep, and see that we are freed";
And when the blow is struck, and slavery dies,
Freedom's great Warrior! then thou may'st claim the skies.

H. A. C. GRAY, M.B. & C.M. Edin.

HOSPITAL AND PRIVATE PRACTICE.

THE following letter has been forwarded to THE LANCET by Mr. Elwin, of the City-road, and is the only reply he has received to the complaint respecting the conduct of one of the house-surgeons of St. Bartholomew's Hospital made in February last. "Better late than never." Mr. Jepson's apology is of the briefest, and we recommend him for the future to be more careful in answering business letters promptly and politely. Mr. Jepson may have gone to the patient in question ignorant of Mr. Elwin's attendance; but he can hardly have failed to recognise the previous presence of some surgeon when he found treatment already commenced. In our opinion, a house-surgeon has no right to follow out of his hospital a patient who has been a subject of charity, unless under very exceptional circumstances.

[COPY.]
St. Bartholomew's Hospital, E.C., April 21.

SIR,—It having come to my knowledge that you have written to the medical papers, complaining of a want of courtesy on my part in attending to a patient once under your care, I beg to disclaim any intentional discourtesy, and to state that I was expressly sent for to the individual in question, and went to him without the knowledge that any medical man had previously been in attendance.

The letter you sent to me reached me at least a fortnight after date, as I had been in the country on account of ill-health. It was then laid aside through stress of work, and so the matter passed out of my mind.

I am, yours truly,
T. Elwin, Esq. EDWARD JEPSON.

Paterfamilias, (Norwich.)—The feasibility of the use of chalk in association with coal as a means, through combustion, of the economic supply of light and heat, is a question which has excited some little controversy. It has been argued affirmatively by the Rev. Mr. Moule, who, in a long letter published in *The Times* a few months since, stated his conviction, as the result of experiment, that the extraction of carbonic acid from chalk and its immediate application to kitchen and parlour fires and to furnaces of every description can be shown to be perfectly feasible, requiring very little alteration in the grates at present in use, and being capable of reducing the consumption of coal fully 50 per cent. Mr. Moule also asserts that by the aid of the carbonic acid of chalk, shale, with which Dorset and Norfolk abound, may be utilised for the production of illuminating gas, with very great saving of cost.

Mr. John A. Davenport, (Nantwich.)—Thanks. Our correspondent's communication shall receive attention.

A GRIEVANCE.

To the Editor of THE LANCET.

SIR,—I have just returned after having spent seven hours in the County Court, with what result I now propose to lay before you, for the purpose of having your opinion in the first place; and, secondly, as a warning to my medical brethren similarly situated.

I sued a man for £2 6s., which debt was incurred in the following way: 15s. for attendance on his wife's confinement, £1 1s. for operating on the child for imperforate anus (this fee including two visits of three miles each between 7 and 10 P.M., and a small bottle of medicine), and 10s. for four journeys and surgical dressing subsequently. My attendance on the infant was terminated at the mother's desire, and this for no reason except that "she could not bear to have any more done to it." I explained the probable consequences, and, pointing out that she made herself responsible if a fatal result ensued, I took my leave. Feeling that I was treated exceedingly ill, I sent in the account, shortly after wishing for a settlement, to wash my hands altogether of such an ugly affair. But not so. The bill was disputed; and feeling much aggrieved at rumours being circulated in the village that the child was taken out of my hands for being subjected to unskilful treatment, I summoned the father to the County Court. I should be sorry to take up your valuable space needlessly by enumerating the different arguments there set forth by the defendant in reply. Suffice it to say they were overruled by the Judge, and a verdict given in my favour. I applied for expenses, but they were not allowed. Now, Sir, this is where I feel the grievance most of all. I saw a tailor, whose place of business was not three hundred yards from the County Court, ask for and receive his expenses. "Time is money," and of all men this applies most truly to professional men. Here was I condemned to drive ten miles, and to sit seven hours in the Court, for the purpose of getting my account settled by "10s. down, and 10s. every month." Even this happy result remains to be tested.

I fear I have already trespassed too much on your patience and that of your readers; but I am impelled to do so for the reasons stated in the beginning, and especially to show with what a sparing hand is justice meted out to a professional man in a County Court.

I am, Sir, yours, &c.,

Fulbourn, Cambs, April 15th, 1874. J. F. STAFFORD.

*** We believe that no costs other than those strictly out of pocket are allowed in cases where the debt is under £5; but we do not understand why the Registrar did not allow Mr. Stafford the expense of travelling ten miles out and home if it was asked for.—ED. L.

Captain Cuttle.—Eighty-six boys have been admitted on board the *Warspite* training-ship during the last three months; 42 have been sent into the Royal Navy, and 51 into the merchant service. The total number sent to sea since the Marine Society placed the first training-ship on the Thames is 57,653. The majority of these have been rescued from a career commonly culminating in crime. Who will withhold from the training-ship the name of "Moral Life-boat"?

Microscopist is referred to the popular, while scientifically exact, treatise on the Microscope by M. Adan (Brussels, 1 vol. 8vo). The "sixth sense," as that instrument has been called, is devoted in his book to the study of insects, parasites, and the principal textures of plants. His style is clear and lively, and the exposition is accompanied by plates, which render it not only intelligible, but attractive to the non-professional reader.

Mr. S. W. Moore.—Send it on.

THE letter of *Dr. Protheroe Smith* arrived too late for insertion in this week's issue.

THE HOSPITAL SATURDAY MOVEMENT.

To the Editor of THE LANCET.

SIR,—I regret exceedingly having to trespass upon your space. The writer of the article which appears in your last impression allows himself to make a statement that is incorrect, and therefore I have no alternative. This gentleman says in his article upon "The Hospital Saturday Conference," first, "Captain Mercier will by this time have perceived that the working men of London do think a little more.....of the Lord Mayor as treasurer than of himself." Second, that "both taste and prudence dictate the propriety of a treasurer of a fund meant for all hospitals not being the treasurer of one hospital." These remarks would naturally lead to the inference that I am the treasurer for the Hospital Saturday Fund. That honour is not mine. It is shared by three distinguished gentlemen—viz., Messrs. Mundella, M.P., Hamilton Moore, and Hodgson Pratt. I am simply the chairman of the committee. As you have thought fit on more than one occasion to give a prominence to my name to which it is not entitled, I am sure you will, with that true gentlemanly feeling which ought to characterise every professional man, admit that the writer of the article is in error. You will, I am sure, also permit me to direct the attention of your numerous and distinguished readers to the result of last Saturday's proceedings at the Mansion House, by which the position of the existing Hospital Saturday Committee was recognised, and that by those most interested, the "working men of London."

I am, Sir, your obedient servant,

Albert-terrace, Hyde-park, April 20th, 1874. CHARLES MERCIER.

A Constant Reader of your Journal.—A club patient is not quite like a private patient in regard to the question put to us. A perfectly friendly medical man—a friend in need—would, doubtless, hand over a club patient as readily as a private patient; but it is obvious that a medical man cannot fairly be held to respect the club contract between a patient whom he is unexpectedly called to attend in labour and her club doctor. He is entitled to charge his own fee, either to share it or keep it as he may think well, and either to keep the patient or hand her over to the medical man whom she had engaged. We have indicated above what would be the highest course; but we must admit the freedom of medical men to act differently in the circumstances.

THE communication of *Mr. Numa Edt* shall receive attention.

SUBURBAN RESIDENCE AND PRACTICE.

To the Editor of THE LANCET.

SIR,—Is it customary for medical men to choose between the locality and the patient? My wife is unfortunately subject to periodical attacks of a certain disease, which will not yield to the treatment of the general practitioner. I look into the Medical Directory, and I rejoice to find that my neighbour is a distinguished physician, who has made this very disease his special study, has written works on its treatment, and is at present attached to a hospital where this disease is exclusively treated. I am ready to pay a liberal fee to such a man. An attack comes on. I send immediately to my neighbour, begging him to come; but to my great surprise I receive a reply (not in a manner consistent with my preconceived notions of politeness) to the effect that "he does not practise about here." Now, if I had gone to his consulting-rooms in London, he would not have made the same objections. I may or may not have reason to regret the loss of his advice. Disease has no professional etiquette. Your obedient servant,

April, 1874. ANXIETY.

*** A medical man with a private and a professional residence is justified in resisting any attempts on the part of suburban neighbours to abuse his proximity. But it is enough for this purpose to put on a deterrent fee, and to act only in consultation. Of course a medical man may refuse absolutely to see a patient in a particular locality; but while he still professes to be in practice, and to be within reach at his town residence, it looks harsh to decline absolutely to see a case of a kind for which he lays himself specially out just because it happens to be near his private residence. He is entitled, however, we repeat, to refuse all but consulting practice, and this at special rates. Otherwise he might as well remain in town.—ED. L.

E. J. G., (Dewsbury.)—There is no absolute evidence that Goldsmith ever graduated in medicine. That he was a medical student at Edinburgh we know; but whether he took a doctor's degree at Louvain or Padua there are no extant documents to prove. But, says Mr. Forster, it is improbable that any false assumption of a medical degree would have passed without question among the distinguished friends of his later life, even if it escaped the exposure of his active enemies. At Padua or at Louvain, or at some other of the foreign Universities, where he always boasted himself hero in the disputations to which his philosophic vagabond refers, there can hardly be a question that the degree, a very simple and accessible matter at any of them, was actually conferred.

MEMORIAL TO THE LATE DR. LIVINGSTONE.

To the Editor of THE LANCET.

SIR,—May I be permitted to suggest that, in addition to the fund proposed to be raised as a national memorial to the late Dr. Livingstone, one very appropriate mode of perpetuating his memory would be the foundation of a "Livingstone Scholarship" at the Royal Medical Benevolent College, where it may be hoped in years to come some holder of the prize may be led to emulate the self-denying heroism and devotion of the great African missionary whose remains have been laid in Westminster Abbey. Such a tribute of national respect is due to the memory of the man who, alone, unaided, and struggling against disease in a deadly climate, accomplished one of the grandest triumphs which any hero of our day has achieved. I feel sure if the Council of the College would adopt this suggestion, the profession would heartily contribute to a work which would at once express our regard for his memory, and show that we are not insensible to the great honour which Livingstone has conferred upon us.

I am, Sir, your obedient servant,

April, 1874. J. M. B.

Mr. Smith.—The dislocation mentioned is not specified in the Articles of the Consolidated Order. Article 177 says that for the treatment of dislocations or fractures of the arm, one pound shall be the fee; but a footnote says "a dislocation of the *arm* includes a dislocation of the shoulder and wrist." It would be absurd to pay a fee for reducing dislocation of the wrist, and not to pay one for reducing the dislocation of the elbow. But we fear that it might be difficult to get guardians or even the Local Government Board to appreciate reduction of a dislocation of the head of the radius in the sense of paying for it, as they undoubtedly should.

TENURE OF POOR-LAW AND OTHER APPOINTMENTS BY GENTLEMEN POSSESSING ONE QUALIFICATION ONLY.

To the Editor of THE LANCET.

SIR,—In reply to the letter signed "Enquirens," I write to say that, in my opinion, no redress is necessary in the case he quotes. In fact, there *is* no redress. I do not see the justice in a doubly qualified man endeavouring to eject an old and tried servant (though he unfortunately does happen to be a mere L.S.A.), who probably has spent time, energy, and capital in the straightforward discharge of his duties. It would be hardly fair that the fact of having paid the paltry sum of two guineas should be sufficient to pauperise, perhaps ruin, a valued practitioner.

Your obedient servant,

London, April 18th, 1874. ONE WHO POSSESSES THE DOUBLE QUALIFICATION.

Archæus, (Birmingham.)—"Le Principe Vital et l'Ame Pensante," par M. Francisque Bouillier. According to a French critic, the author sets himself to answer the questions—What is the latent energy which forms at first the embryo, then the fœtus during intra-uterine life? What is the power which conserves, develops, regenerates the human body after birth? Having reviewed the various answers heretofore given, M. Bouillier tenders his own. The vital principle and the thinking soul, he tries to prove, are one and the same cause. The surest evidence of this he believes he has found in the testimony of conscience. We have seen this answer before; but never conveyed with profounder erudition, keener analysis, or greater lucidity of style. The publisher is Didier.

Mr. G. J. Brummell.—We do not recommend a particular physician or surgeon. Our correspondent had better consult a medical practitioner in his own neighbourhood.

THE letter of *Mr. Nicholls* is in type, but crowded out of the present number. It shall appear in our next.

Mr. James Robinson's paper shall receive attention.

AN OPHTHALMIC CASE.

To the Editor of THE LANCET.

SIR,—Can any of your readers make a suggestion in reference to the treatment of the following case?

A healthy youth, aged nineteen, the son of healthy parents, was operated on for strabismus of one eye two years ago. For many years he has suffered from extreme intolerance of light, with occasional attacks of cornealtis. The operation referred to, though successful as such, has not been followed by any alteration of the morbid sensitiveness. The sight is fairly good, but he can only see to read very large print in dim light; in the daytime his eyes are almost constantly kept more or less closed. There is a little exudation into the substance of each cornea, causing faint streaks of opacity; they are, moreover, dull, rough, and slightly "ground-glass" like. The pupils act perfectly. Ophthalmoscopic examination reveals nothing abnormal in the retinæ. Both palpebral and ocular conjunctivæ are pervaded by a loose network of vessels. Sclerotics healthy. All the ordinary remedies have been thoroughly tried—belladonna internally and locally, bichloride of mercury lotion, nitrate of silver solutions of various strengths, wine of opium, &c. &c. Perhaps some brother practitioner will kindly suggest a plan of treatment that has a chance of being useful.—I am, Sir, yours, &c.,

Liskeard, April, 1874. WILLIAM J. CORIN.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Murchison, London; Dr. Bastian, London; Mr. Henry Smith, London; Dr. B. Foster, Birmingham; Dr. Rogers, London; Dr. Meadows, London; Mr. Custance, London; Prof. Brazier, Aberdeen; Dr. Bleckley, Merthyr; Mr. Nicolls, Chelmsford; Messrs. Garrard, London; Dr. Steele, Liverpool; Mr. Carey, Chicago; Mr. Crossley, Chislehurst; Mr. Elwin, London; Dr. Tylecote, Sandon; Mr. Todd, London; M. Saulmier, Paris; Mr. Ainley, Halifax; Mr. Morris, Portmadoc; Mr. S. W. Moore, London; Mr. Chattell, London; Dr. Mackintosh, Chesterfield; Mr. Walter, Dover; Dr. Cassells, Glasgow; Messrs. Street, London; Mr. Rye, London; Mr. Mitchell, Melbourne; Dr. Spender, Bath; Mr. Ashby, Grantham; Mr. Jas. Robinson, Egerton; Mr. Weaver, Longton; Mr. Butlin, London; Mr. Poole, London; Dr. Gray, Edinburgh; Mr. Robinson, London; Mr. Reed, London; Mr. Rivington, London; Mr. Shuttleworth, London; Dr. Lawson, London; Mr. Smith, Burton; Mr. Deschamps, London; Capt. Mercier, London; Mr. J. M'Crea, Belfast; Mr. Liddard, London; Mr. Fergusson, Peebles; Mr. Davenport, Nantwich; Mr. Toulmin, London; Mr. Harding, London; Mr. Stafford, Cambridge; Dr. Purdon, Belfast; Mr. Piggott, London; Dr. Duckworth, London; Mr. Finney, Dublin; Mr. Nelson; Messrs. Brand & Co., London; Mr. Brummell; Dr. Bright, Cheltenham; Dr. Maclagan; Dr. Cameron, Glasgow; Dr. Sheard, London; Mr. Meyer, London; Mr. C. Hammond, London; Mr. Jeffreys, Chesterfield; Mr. Hind, Terfyn; Mr. Purcell, Nottingham; Mr. Woodcock, Bradford; Mr. Hale, Chesterfield; Mrs. Coote, London; Mr. Armstrong, Greenwich; Mr. Moses, London; Dr. Langston, Strood; Mr. Gabb, Woodbank; Dr. Roberts, Sheffield; Mr. Numa Rât, London; Mr. Roberts, Beeton; Dr. Palmer, Madusa, India; Mr. Burr, Keighley; Dr. Maxwell, Stickney; Dr. Edis, London; Mr. Blanchard, London; Mr. Winville, Ramsgate; Mr. Dicey, Northampton; Mr. Toller, Barnstaple; Dr. Wilson, Glasgow; Mr. Hickman, Newbury; Mr. White, Kensington; Mr. Purcell, Great Grimsby; Mr. Vickers, Exeter; Mr. Price, Barnsley; Mr. Smith, Lancaster; Mr. Smith, Hastings; Mr. Alderson, Hammersmith; Dr. Smith, New York; Mr. Prigg, Bury St. Edmunds; Mr. Sellers, Radcliffe; Mr. Little, Eye; Mr. Comfield, Elland; Dr. M'Leod, Galston; Mr. Morgan, Swansea; Mr. Head, Rhyl; Dr. Hewett, Winkfield; Mr. Watson, Edinburgh; Mr. Williams, Eythorne; Mr. Layton, Elland; Mr. Gordon, Stockton-on-Tees; Mr. Candler, Harleston; Mr. Fairman, Huddersfield; Mr. Harry, Oxford; Mr. Walker, Corwen; Mr. Wolveron, Alfreton; Mr. Foulkes, Southport; Mr. Rye, Leckhampton; Mr. Fenton, Doncaster; Mr. Muriel, Whitehaven; Mr. Rosser, Croydon; Dr. Stewart; Mr. Macpherson; Mr. M'Gowan, Oldham; Mr. Bryan, Northampton; Mr. Smith, Heywood; Mr. Page, Malvern; Mr. Cowell, London; Mr. May, Aston; Mr. Byerley, Portsea; Mr. Ruckley, London; Mr. Trippier, Liverpool; Mr. Pullen, Leamington; Mr. Watkins, Worcester; Mr. Robinson, Pendleton; Mr. Turtle, London; Mr. Lowther, Cleaton; Mr. Clark, Edinburgh; Mr. Atkinson; Messrs. Corbyn, London; Enquirer; M.R.C.S.; A Constant Reader; W. F. S.; A Valued Friend; Macphelah; M.D.; W. T. S.; A Country Doctor; Abercorn; &c. &c.

Newcastle Daily Chronicle, Cork Constitution, Circle, Manchester Guardian, Welshman, Northern Daily Express, South London Journal, Scotsman, Mansfield and North Notts Advertiser, Nantwich Guardian, Parochial Critic, Surrey Advertiser, East London Observer, Isle of Man Times, Bradford Observer and *Huddersfield Daily Chronicle* have been received.

METEOROLOGICAL READINGS

(*Taken by Steward's Instruments*).

THE LANCET OFFICE, APRIL 23RD, 1874.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Apr. 17	30·03	WNW	46	50	93	59	46	...	Fine
" 18	30·0	W.	51	53	99	65	49	0·06	Overcast
" 20	30·14	WNW	49	53	100	69	47	...	Overcast
" 21	30·01	E.S.E.	52	57	111	78	48	...	Fine
" 22	30·13	N.N.E	51	57	101	71	51	...	Fine
" 23	30·18	S.E.	51	54	...	...	48	...	Fine

Medical Diary of the Week.

Monday, April 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations on the Eye, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL. — 3 P.M. Expected Operations: Lithotomy and two Cases of Lithotrity.
MEDICAL SOCIETY OF LONDON. — 8 P.M. Dr. Spender, of Bath, will read an Abstract of his Fothergillian Essay, 1874, "On Therapeutic Means for the Relief of Pain."—Dr. Routh, "On certain New Preparations of Phosphorus, and their Action on the Economy." — Mr. Ashburton Thompson, "On the Medicinal Use of free Phosphorus." — Mr. Wm. Adams, "On a Case of Strangulated Femoral Hernia reduced by a large Injection of Oil."

Tuesday, April 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Rutherford, "On the Nervous System."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY. — 8 P.M. Dr. Dobell, "On the Natural History of Pulmonary Consumption." — Mr. Barwell, "On Septic Disease in and out of Hospital."

Wednesday, April 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, April 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. Noel Hartley, "On the Atmosphere and its Relations to Life."

Friday, May 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 2 P.M. Annual Meeting. — 9 P.M. Prof. Rolleston: "Early Inhabitants of North of England."

Saturday, May 2.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Seeley: "Age of French Revolution."

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